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**WAR HISTORY OF
AMERICAN RAILROADS**

ECONOMIC AND SOCIAL HISTORY
OF THE WORLD WAR

JAMES T. SHOTWELL, PH.D., LL.D., *General Editor.*

AMERICAN SERIES

WAR HISTORY OF AMERICAN RAILROADS

BY

WALKER D. HINES ✓

DIRECTOR-GENERAL OF RAILROADS, 1919-1920

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EDITOR'S PREFACE

IN the autumn of 1914, when the scientific study of the effects of war upon modern life passed suddenly from theory to history, the Division of Economics and History of the Carnegie Endowment for International Peace proposed to adjust the program of its researches to the new and altered problems which the war presented. The existing program, which had been prepared as the result of a conference of economists held at Berne in 1911, and which dealt with the facts then at hand, had just begun to show the quality of its contributions; but for many reasons it could no longer be followed out. A plan was therefore drawn up at the request of the Director of the Division in which it was proposed, by means of an historical survey, to attempt to measure the economic cost of the war and the displacement which it was causing in the processes of civilization. Such an 'Economic and Social History of the World War,' it was felt, if undertaken by men of judicial temper and adequate training, might ultimately, by reason of its scientific obligations to truth, furnish data for the forming of sound public opinion, and thus contribute fundamentally toward the aims of an institution dedicated to the cause of international peace.

The need for such an analysis, conceived and executed in the spirit of historical research, was increasingly obvious as the war developed, releasing complex forces of national life not only for the vast process of destruction, but also for the stimulation of new capacities for production. This new economic activity, which under normal conditions of peace might have been a gain to society, and the surprising capacity exhibited by the belligerent nations for enduring long and increasing loss—often while presenting the outward semblance of new prosperity—made necessary a reconsideration of the whole field of war economics. A double obligation was therefore placed upon the Division of Economics and History. It was obliged to concentrate its work upon the problem thus presented, and to study it as a whole; in other words, to apply to it the tests and disciplines of history. Just as the war itself was a single event, though penetrating by seemingly unconnected ways to the remotest parts of the world, so the analysis

of it must be developed according to a plan at once all embracing and yet adjustable to the practical limits of the available data.

During the actual progress of the war, however, the execution of this plan for a scientific and objective study of war economics proved impossible in any large and authoritative way. Incidental studies and surveys of portions of the field could be made and were made under the direction of the Division, but it was impossible to undertake a general history for obvious reasons. In the first place, an authoritative statement of the resources of belligerents bore directly on the conduct of armies in the field. The result was to remove as far as possible from scrutiny those data of the economic life of the countries at war which would ordinarily, in time of peace, be readily available for investigation. In addition to this difficulty of consulting documents, collaborators competent to deal with them were for the most part called into national service in the belligerent countries and so were unavailable for research. The plan for a war history was therefore postponed until conditions should arise which would make possible not only access to essential documents, but also the coöperation of economists, historians, and men of affairs in the nations chiefly concerned, whose joint work would not be misunderstood either in purpose or in content.

Upon the termination of the War, the Endowment once more took up the original plan, and it was found with but slight modification to be applicable to the situation. Work was begun in the summer and autumn of 1919. In the first place, a final conference of the Advisory Board of Economists of the Division of Economics and History was held in Paris, which limited itself to planning a series of short preliminary surveys of special fields. Since, however, the purely preliminary character of such studies was further emphasized by the fact that they were directed more especially towards those problems which were then fronting Europe as questions of urgency, it was considered best not to treat them as part of the general survey, but rather as of contemporary value in the period of war settlement. It was clear that not only could no general program be laid down *a priori* by this conference as a whole, but that a new and more highly specialized research organization than that already existing would be needed to undertake the Economic and Social History of the War, one based more upon national grounds in the first instance, and less upon

purely international coöperation. Until the facts of national history could be ascertained, it would be impossible to proceed with comparative analysis; and the different national histories were themselves of almost baffling intricacy and variety. Consequently the former European Committee of Research was dissolved, and in its place it was decided to erect an Editorial Board in each of the larger countries and to nominate special editors in the smaller ones, who should concentrate, for the present at least, upon their own economic and social war history.

The nomination of these boards by the General Editor was the first step taken in every country where the work has begun. And if any justification was needed for the plan of the Endowment, it at once may be found in the lists of those, distinguished in scholarship or in public affairs, who have accepted the responsibility of editorship. This responsibility is by no means light, involving as it does, the adaptation of the general editorial plan to the varying demands of national circumstances or methods of work; and the measure of success attained is due to the generous and earnest coöperation of those in charge in each country.

Once the editorial organization was established there could be little doubt as to the first step which should be taken in each instance toward the actual preparation of the history. Without documents there can be no history. The essential records of the war, local as well as central, have therefore to be preserved and to be made available for research in so far as is compatible with public interest. But this archival task is a very great one, belonging of right to the governments and other owners of historical sources and not to the historian or economist who proposes to use them. It is an obligation of ownership; for all such documents are public trust. The collaborators on this section of the war history, therefore, working within their own field as researchers, could only survey the situation as they found it and report their findings in the form of guides or manuals; and perhaps, by stimulating a comparison of methods, help to further the adoption of those found to be most practical. In every country, therefore, this was the point of departure for actual work; although special monographs have not been written in every instance.

The first stage of the work upon the war history, dealing with little more than the externals of archives, seemed for a while to exhaust

the possibilities of research, and had the plan of the history been limited to research based upon official documents, little more could have been done, for once documents have been labelled 'secret' few government officials can be found with sufficient courage or initiative to break open the seal. Thus vast masses of source material essential for the historian were effectively placed beyond his reach, although much of it was quite harmless from any point of view. While war conditions thus continued to hamper research, and were likely to do so for many years to come, some alternative had to be found.

Fortunately, such an alternative was at hand in the narrative, amply supported by documentary evidence, of those who had played some part in the conduct of affairs during the war, or who, as close observers in privileged positions, were able to record from first or at least second-hand knowledge the economic history of different phases of the Great War, and of its effect upon society. Thus a series of monographs was planned consisting for the most part of unofficial yet authoritative statements, descriptive or historical, which may best be described as about half-way between memoirs and blue-books. These monographs make up the main body of the work assigned so far. They are not limited to contemporary war-time studies; for the economic history of the war must deal with a longer period than that of the actual fighting. It must cover the years of "deflation" as well, at least sufficiently to secure some fairer measure of the economic displacement than is possible in purely contemporary judgments.

With this phase of the work, the editorial problems assumed a new aspect. The series of monographs had to be planned primarily with regard to the availability of contributors, rather than of source material as in the case of most histories; for the contributors themselves controlled the sources. This in turn involved a new attitude toward those two ideals which historians have sought to emphasize, consistency and objectivity. In order to bring out the chief contribution of each writer it was impossible to keep within narrowly logical outlines; facts would have to be repeated in different settings and seen from different angles, and sections included which do not lie within the strict limits of history; and absolute objectivity could not be obtained in every part. Under the stress of controversy or apology, partial views would here and there find their expression. But these views are in some instances an intrinsic part of the history itself,

contemporary measurements of facts as significant as the facts with which they deal. Moreover, the work as a whole is planned to furnish its own corrective; and where it does not, others will.

In addition to the monographic treatment of source material, a number of studies by specialists are already in preparation, dealing with technical or limited subjects, historical or statistical. These monographs also partake to some extent of the nature of first-hand material, registering as they do the data of history close enough to the source to permit verification in ways impossible later. But they also belong to that constructive process by which history passes from analysis to synthesis. The process is a long and difficult one, however, and work upon it has only just begun. To quote an apt characterization, in the first stages of a history like this one is only "picking cotton." The tangled threads of events have still to be woven into the pattern of history; and for this creative and constructive work different plans and organizations may be needed.

In a work which is the product of so complex and varied coöperation as this, it is impossible to indicate in any but a most general way the apportionment of responsibility of editors and authors for the contents of the different monographs. For the plan of the History as a whole and its effective execution the General Editor is responsible; but the arrangement of the detailed programs of study has been largely the work of the different Editorial Boards and divisional editors, who have also read the manuscripts prepared under their direction. The acceptance of a monograph in this series, however, does not commit the editors to the opinions or conclusions of the authors. Like other editors, they are asked to vouch for the scientific merit, the appropriateness, and usefulness of the volumes admitted to the series; but the authors are naturally free to make their individual contributions in their own way. In like manner, the publication of the monographs does not commit the Endowment to agreement with any specific conclusions which may be expressed therein. The responsibility of the Endowment is to History itself—an obligation not to avoid but to secure and preserve variant narratives and points of view, in so far as they are essential for the understanding of the War as a whole.

J. T. S.

AUTHOR'S INTRODUCTION

AMERICAN economic history of the War would be incomplete without an account of the war control of the American railroads. Railroad activities are intertwined in countless ways with the country's industry, labor, commerce, and finance, so that what the War did regarding the railroads constitutes a vital part of its social and economic influence upon the nation as a whole.

The significance of the railroads in time of war is by no means confined to the movement of troops and war material and the movement of civilian passengers and freight. The railroads are purchasers and consumers of surprisingly large proportions of the country's principal basic products. Under normal conditions they consume annually from one and one-half to two billion dollars' worth of materials and supplies. They use nearly one-third of the bituminous coal which is mined in the country. They use, directly and indirectly, something like 40 per cent of the steel and iron products manufactured in the country. They also use, directly and indirectly, about 40 per cent of the timber products of the country. They utilize directly the services of nearly two million employees, to say nothing of the employees in the industries largely dependent, for the consumption of their products, upon railroad purchases. Investment in railroads constitutes a very important proportion of the total investments in corporate securities.

In such circumstances the influence of the War upon general business conditions had multiform reactions upon the railroads and, through the railroads, upon the economic and social conditions of the country as a whole.

It is interesting to consider the War's influence upon prices for the materials and supplies consumed by the railroads, and the railroad methods of acquiring those materials and supplies in the face of the demands for war purposes generally. It is also important to consider how deeply the railroads were affected, in dealing with their nearly two million employees, by the demands for men for military purposes and for labor for munitions purposes, with the resulting influences in increasing the wages and changing the working conditions of railroad employees.

Hundreds of millions of dollars of capital were needed by the railroads to provide the indispensable additions and betterments called for, even in war-time, and also to enable the railroads to refund their maturing obligations. All this capital had to be obtained despite the Government's need for vastly greater sums of capital eaten up in the conducting of military operations by the country and its allies.

Another fundamental problem was the insuring of a reasonable return on the billions of dollars of investment in the railroads, despite the kaleidoscopic conditions which made it impracticable to make sure that the revenues from railroad traffic would equal the railroad expenses during the war and post-war periods. This and the foregoing factors all had an intimate relation to the country's general financial stability which was of first importance in the successful financing of the War.

The peculiar war-time difficulties surrounding these vast business situations connected with the railroads, as well as the providing of prompt transportation in constantly increasing quantity as the War proceeded, constituted one of the major problems connected with the conduct of the War. For the first nine months from April to December, 1917, an effort was made to cope with these conditions by attempting to achieve, under private direction, the requisite unity of operation of the numerous railroads, which under normal conditions were privately owned and operated. But this method did not fully measure up to the needs of the Government, or indeed to all the needs of the situation generally, so that the Government, as of January 1, 1918, took possession and control of the railroads and operated them until the Armistice and for nearly sixteen months thereafter, pending the adoption by Congress of an improved system of railroad regulation. The treatment of these matters is the object of the ensuing chapters, although they are devoted principally to the different phases as they manifested themselves during the period of government control and operation.

This account deals not only with questions of physical transportation during the War, but also with the various other ways, suggested above, in which, both before and after the Armistice, the War wrought its disturbing influences on the railroads in their many-sided relations to the country's economic life. After dealing

briefly with the country's railroad background and the nine months of attempted unification under private direction, the book treats of the Government's numerous rôles during the ensuing period to March 1, 1920, as railroad operator, as purchaser of all railroad supplies, as the common carrier of the country's freight and passenger traffic for war and for civil purposes, as the lessee of the railroads owned by about five hundred railroad companies (with the Government's manner of fulfilling its complicated obligations under the leases, including the obligation of maintenance), and as the principal source of the capital which had to be supplied to make the necessary railroad additions and betterments. This account must also treat of the Government as the employer of the two million railroad employees, influenced as it was in that regard by the wages and labor conditions which the War produced, before and after the Armistice, in other industries.

It is necessary to point out not only how these matters were dealt with prior to the Armistice, but how they were handled in the succeeding period of uncertainty and difficulty which had to elapse before Congress could adopt the legislation which it and the President deemed essential before the railroads could be turned back to private control. It is also necessary to suggest the difficulties through which the railroads passed after their return to private control, for the effects of the War, of course, persisted in an acute form for several additional years.

An analysis of the situation brings out in true perspective that the War cast its burdens and complications upon the people in the matter of railroad operations in all their varied aspects just as it did in the matter of industrial activities in general. Our Government's war control of the railroads was not an isolated episode but was merely one of many illustrations, here and abroad, of the governmental overriding of private initiative in most of the important fields of business, and was simply an especially striking instance of the mobilization of corporate enterprise for war purposes,—a condition which seems to be inevitable when modern war so completely involves all the social and economic resources of civilization.

The study of this subject emphasizes the almost infinite complexity of the problems which a world war will precipitate in its subjection of privately owned property to the war purposes of the

State and in the suppression of that liberty of action which is normal, and so highly prized, in time of peace. The government control of railroads from January 1, 1918, to March 1, 1920, was a method of mobilizing this part of the country's capital and enterprise for war purposes, just as a great portion of the country's man power was mobilized for military service, with restricted compensation and loss of freedom of action.

It was not an isolated experiment applied in this one field, but was only one chapter in the economic conduct of the War. In every country engaged in the War the story was similar. In proportion as the Government sensed the imminence of a national crisis, when success or failure depended upon the concentration of energy and upon the mobilization of every available resource, there was no holding back the extension of government control over the whole field of industry and economic activity. This was the almost universal lesson of the economic history of the War, as these volumes bear witness. It, therefore, seems reasonable to assume that if war should ever come again that lesson would continue to be applied, here as elsewhere, with increasing force, with the result that there would be far less, instead of more, stimulus to industry for private profit than in the past. In the future, participation in a war would mean, almost inevitably, that the Government's disposition would be to go much further than in the last War in the direction of mobilizing capitalistic enterprise in general so as to control its compensation as well as its policies. If this should turn out to be the Government's purpose, would it not be probable that the Government would insist upon as complete assumption of power over the railroads as in the last War? This would involve the Government in far-reaching responsibilities for the railroad situation in every phase in which the railroads affected the country's social and economic conditions. Therefore, would there not be a reasonable probability that the Government would again exact such a fundamental adaptation of the railroads to war purposes that the disruptions involved in the transition to war control, in war operation, and in the transition back to private control would differ only in detail from the disruptions exemplified in the last War?

I desire to express my indebtedness to my wife for her unfailing interest in the preparation of this volume and for her always valuable

advice in the promotion of correctness and clarity of expression. The basic material for the book has been compiled by Mr. J. L. White, who was Statistician in my office while I was Director General in charge of the railroads in 1919 and 1920. It was only by reason of Mr. White's able and vigilant assistance that I could get the material in available form for my writing of the text, and, throughout, his familiarity with, and interest in, the subject made his suggestions of the greatest value.

The heads of the various Divisions of the Railroad Administration during my incumbency of the office of Director-General, and in many instances their assistants, gave generously of their time and effort in aiding me in the preparation of the chapters dealing with their respective branches of the work, and to all of them I wish to express my appreciation. I had occasion to make inquiries of many others who were associated in some form with the Railroad Administration and from all of them I received most courteous and helpful assistance. My personal office staff also gave an unusual measure of loyal and intelligent help, for which I take pleasure in expressing my thanks.

WALKER D. HINES

New York,
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WAR HISTORY OF AMERICAN RAILROADS

CHAPTER I

STATUS OF THE RAILROADS UPON THE UNITED STATES ENTERING THE WAR, AND THE CONDITIONS LEADING UP TO THAT STATUS

WHEN the United States entered the War in April, 1917, the railroads, after about ninety years of development, had attained such a growth that they aggregated 260,000 miles of first main track operated with a total of 400,000 miles of track of all kinds (*i.e.*, additional main tracks, yard tracks, side tracks, etc.). The railroads were privately owned and operated. While there were several hundred operating railroad companies, yet about 77 per cent of the total mileage of road was operated in thirty-two systems. (See appendix to this chapter.) The different systems of railroads were intensely competitive. Ever since 1887 the Interstate Commerce Act had prohibited pooling arrangements among competing lines. The Anti-Trust Act of 1890, as interpreted by the Supreme Court in the *Trans-Missouri Freight Association and Joint Traffic Associations Cases*¹ had prohibited mergers of competing lines or agreements among them to stabilize rates. It was the policy of the law to encourage competition to the fullest possible extent, and to discourage all forms of coöperation tending to diminish competition.

The great bulk of the industrial activity and coal production of the country was in the region which may roughly be described as lying between the Mississippi River and the Atlantic Ocean, with the Great Lakes on the north and on the south the Ohio River and the Norfolk & Western Railway (extending from the Ohio River to the Atlantic Ocean). This region was roughly about 800 to 1,000 miles from west to east, and 300 to 500 miles from south to north. Along the Atlantic Ocean, within these limits, were the ports through which the great bulk of exports were made to Europe. This region, with only about 15 per cent of the area of the country, had about 50 per cent of the population, 54 per cent of the railroad freight traffic

¹ *United States v. Trans-Missouri Freight Association*, 166 U.S. 290 (March 22, 1897); *United States v. Joint Traffic Association*, 171 U.S. 505 (October 24, 1898).

(revenue ton miles), and 48 per cent of the railroad passenger traffic (passenger miles), of the country. This meant that in this eastern region there was a much more intensive development of railroad transportation, and a much greater liability, even in normal times, to congestion of rail traffic. Within the eastern region, as well as throughout the country, almost all internal traffic was dependent upon railroad transportation, because river and canal navigation had never been very largely developed and had become more and more negligible in contrast with the rapid growth of railroad transportation.

Since America was an undeveloped country when railroad construction began, railroad development was the predecessor, in the main, of the country's agricultural and industrial development. On the contrary, western Europe had been fully settled and had had long and intensive development, agricultural and industrial, before the advent of railroads. As a consequence of this difference, American railroads, being built so largely in advance of the development of traffic, were at the outset constructed to a large extent in a relatively inexpensive and less substantial way than they would have been if the traffic had already been developed before their coming. Furthermore, the growth of the volume of traffic in the United States has been so stupendous that it would rapidly have outgrown any standards of railroad construction which could have been originally adopted, even though a large traffic had been assured at the outset. As a result, a fundamental distinction between the railroads of this country and the railroads of western Europe has been that the railroads of this country have been to an exceptional extent under the continual necessity of additional construction to enlarge their capacity, so as to provide additional main tracks, lengthen sidings, enlarge terminal yards, increase shop capacity, equip themselves with larger cars and locomotives, strengthen their roadways and structures to admit of handling larger and heavier equipment and also to reduce grades and curvatures so as to get more economical operation than appeared worth striving for at the time of original construction. Consequently, the annual needs for additional capital expenditure were enormous. In other words, because the country was rapidly growing, there was imperative need for additional railroad growth which could only be satisfied by raising each year large amounts of new capital.

In the eight years preceding our entry into the War, the investment in the railroads grew from about \$13,200,000,000 June 30, 1908, to about \$17,800,000,000 December 31, 1916, representing an annual enlargement of over \$575,000,000. The general opinion was that the railroad companies had not spent on improvements nearly as much as they needed to spend to keep up with the growth of the traffic.

Due to a great variety of competitive influences (*e.g.*, competition of railroad with railroad, of region with region, of market with market, of seaport with seaport), the average revenue per ton mile had fallen by 1899 to an extremely low level, less than 7½ mills, and had remained at about that level until 1917. The railroads had been able to survive notwithstanding this very small compensation because the rapidly increasing volume of business enabled them, by the expenditure of large amounts of new capital, to increase the train load and reduce the cost per ton mile. But by 1917 the railroads were approaching a critical condition because (a) the margin of opportunity for still further increasing the train load was apparently narrowing; (b) the cost of labor, material and public taxes had been rising with great rapidity since the latter part of 1915 (the increase in wages and taxes had begun several years earlier), and (c) governmental regulation had become increasingly restrictive in its operation.

A few words as to governmental regulation of railroads are needed to explain the last statement. Beginning about 1870, the States had sought to control railroad rates. In 1886 the Supreme Court of the United States held that State laws could not regulate the interstate rates.² In 1887 Congress began the series of enactments which are known collectively as the Interstate Commerce Act. The original Federal Act was experimental and it took many years for it to grow "teeth" to enable it to "bite" into the situation and hold it. But in 1906, after prolonged agitation, Congress conferred upon the Interstate Commerce Commission the power to prescribe maximum rates for interstate carriage of freight and passengers. In 1910, this power was enlarged and strengthened and the additional power to suspend increases in rates was given and the Interstate Commerce Commission's powers of a supervisory character were greatly strengthened. By 1910, the most drastic and effective methods of State control of

² *Wabash, etc., v. Railway Co.*, 118 U.S. 557.

intrastate rates had been largely copied by all the States, so that almost every State had a Railroad or Public Utility Commission with effective control over the intrastate rates.

All the legislation, both Federal and State, proceeded on the principle that the sole concern of the public was to see that the railroads did not impose upon the public. The possibility that the laws might be so strict as to prevent the railroads from adequately serving the public had not become a substantial motive in legislation. The courts gave recognition to the constitutional principle that governmental rates for the railroads must not be so low as to deprive a particular railroad of a fair return on the fair value of its property, but it was rarely the case that the railroads were able to invoke this constitutional principle effectively in practice. So the result was that both Federal and State commissions felt little, if any, concern for seeing that rates were high enough to encourage the adequate development of transportation, and resolved all doubts in favor of reductions in rates and against sanctioning increases. There was not only nothing in the way of a governmental guaranty of a return to the railroad companies, but there was nothing which placed upon the regulating Commissions either Federal or State any clearly defined and understood responsibility for seeing that rates were sufficiently high to support an adequate transportation service.

Another serious difficulty was that State regulations concerning rates frequently controlled interstate rates by forcing them to lower levels. The reduction by a State authority of an intrastate rate between two points in the State might and frequently did affect a very considerable section of interstate rates to or from points situated outside the State but situated in territory closely related in a traffic sense. The power of the Federal authority, the Interstate Commerce Commission, to protect the interstate revenues of carriers from such results of action under the authority of a single State was not complete or adequate. The opportunities thus afforded to each of the States to influence the interstate revenues and rates of the railroad companies operated steadily in the direction of reductions. In the nature of things such influences could not operate in the direction of increases in interstate revenues or rates, because the root of the influence was the competitive situation and in a competitive situation it is the lowest rate that prevails.

In addition to these unfavorable restrictions on revenues, govern-

mental action was increasingly invoked to augment railroad expenses. For several years it had been quite usual for State legislatures, on the plea of increasing the safety of railroad operation, to enact legislation requiring the employment of more employees or requiring additional capital outlay (*e.g.*, the "full crew laws," the laws limiting the length of freight trains, the laws requiring the elimination of grade crossings, etc.). In 1916, to avert a strike of the train service men, Congress, upon President Wilson's recommendation, had passed the Adamson Act establishing the basic eight-hour day in freight train service and involving a substantial increase in the outlay for wages.

The efforts of the railroad companies to get the Interstate Commerce Commission to sanction increases in rates to meet these burdens had been disappointing. The Commission hesitated to allow increases. It was disposed to assume that additional railroad economies and increases in business would offset the increased burden. While some increases had been allowed, the railroad companies felt that they were entirely inadequate to meet the situation.

These factors combined to make a most unsatisfactory situation. Despite the large additional investments of capital in the railroads in the effort to keep their facilities abreast of the demands upon them, they had not felt able to raise enough capital to equip themselves with adequate facilities to handle the heavy volume of traffic offering in busy seasons, so that traffic congestion became at times exceedingly serious.

For some years the railroad executives had been gravely concerned on account of the unfavorable and hampering trend of all these elements and frequently urged the necessity for relief upon the President, the Congress and the general public. As a result of the dangers involved in the situation, President Wilson in a message to Congress on December 7, 1915, recommended a general inquiry. The following are excerpts from his message:

In the meantime may I make this suggestion? The transportation problem is an exceedingly serious and pressing one in this country. There has from time to time of late been reason to fear that our railroads would not much longer be able to cope with it successfully, as at present equipped and coördinated. I suggest that it would be wise to provide for a commission of inquiry to ascertain by a thorough canvass of the whole question whether our laws as at present framed and ad-

ministered are as serviceable as they might be in the solution of the problem . . . the question is not what should we undo? It is whether there is anything else we can do that would supply us with effective means, in the very process of regulation, for bettering the conditions under which the railroads are operated and for making them more useful servants of the country as a whole.

The Senate and House accordingly adopted a joint resolution, approved by the President, July 20, 1916, for the appointment of a joint committee to conduct a sweeping inquiry on the matter of transportation and to report to Congress. This joint committee, with Senator Newlands of Nevada as Chairman and Congressman Adamson of Georgia as Vice-Chairman, had extensive hearings which continued for more than a year until November, 1917, and which were finally interrupted by the Government taking possession and control of the railroads on December 27, 1917, as explained below.

In 1916, on account of the extraordinary demands of the European belligerents for supplies, our railroads handled a very large traffic and enjoyed an important increase in net returns, but it was the settled conviction of the railroad managements that the upward trend in costs, including the cost of capital, was much more rapid than any hoped-for upward trend in revenues. This induced a hesitant attitude toward the making of the enormous additional improvements which seemed necessary to admit of handling the greatly increased traffic growing out of the European demands. Powerful influences contributing to this hesitancy were the extraordinary increases in prices (which were likewise the outgrowth of the European demands), and, of course, the uncertainty as to how long this war-stimulated traffic would last.

The situation contained another substantial element of concern and uncertainty—the labor situation. The train and engine men constituted the only class of railroad labor which was thoroughly organized upon a nation-wide basis. Their organizations had asserted themselves in a most disturbing fashion when, by threat of a nation-wide strike, they had succeeded in getting President Wilson to recommend, and Congress to enact, the Adamson Act already referred to. The constitutionality of this Act was challenged by the railroads. After the case had been in the courts several months the labor organizations gave notice that they would strike unless granted the basic eight-hour day in accordance with their interpretation of

the Adamson Act irrespective of and without waiting for the decision of the Supreme Court in the case testing the constitutionality of the Act. At the instance of the President and under stress of national necessity, the railroads yielded to these demands of the labor unions early in the morning of March 19, 1917. Later in the day the Supreme Court upheld the constitutionality of the Act. Such developments enormously increased the prestige of the train and engine men's organizations and greatly encouraged other labor organizations to increase their efforts to strengthen their hold on railroad labor. Up to this time other classes of railroad labor had not been effectively organized on the railroads in general. There was a nation-wide organization of the shopcrafts which had secured recognition on many railroads, but not on many of the most important railroads, and some other classes of railroad labor had secured recognition on some railroads. But there was a steady pressure to extend the control of organized labor. This was favored by the increasing scarcity of man-power due to the enormous demands for labor growing out of the industrial activity which was stimulated by the demands of the European belligerents. As an illustration, the unions of the shopcrafts were able in the winter of 1916-1917 to extend and strengthen their standing on the railroads in the southeast, and force the making of the "Southeastern Agreement" with the principal railroads in that section, including the Atlantic Coast Line, Chesapeake & Ohio, Norfolk & Western, Seaboard Air Line, and Southern Railway, establishing increased rates of pay and elaborate rules prescribing working conditions which were regarded as highly favorable to the employees. The rates of pay were to be effective March 1, 1917, and the working conditions to be effective September 1, 1917.

The incidents mentioned in the preceding paragraph are illustrative of a general condition which was favoring the success of organized labor, and making it more difficult to resist the steady pressure which the labor unions were putting forth confidently and aggressively for additional recognition as well as increased rates of pay and more favorable working conditions.

It is not unnatural that there was unrest among railroad employees. Their cost of living was steadily increasing. Their wages in general were low, and appeared extremely low in comparison with the wages in the war-stimulated industries. These conditions, coupled with the growing scarcity of labor, made it easier for labor leaders

to appeal successfully to the rank and file of railroad labor to demand better wages and working conditions, and recognition of labor unions.

All of these unfavorable influences had converged to produce a situation where the railroads were not enlarging and improving their facilities sufficiently to take care satisfactorily of even the normal increase in business, and at the same time the railroads were being called upon to handle an unexpectedly large volume of business by reason of the highly stimulated movement of traffic to meet the war demands from Europe. The movement of this traffic was complicated by very serious congestion at the Atlantic Seaboard due to the inability of the European Allies to provide adequate shipping to take the traffic from the railroads. Such influences combined to produce a series of transportation crises of increasing gravity.

The Interstate Commerce Commission, in its Annual Report to Congress December 1, 1916, declared that generally in times of good business there was widespread inability to secure satisfactory railroad service and that this difficulty recurred during the fall and winter months of practically every year as to coal and usually as to grain. The Commission indicated that such troubles though called car shortages were due largely to inadequacy and congestion of other facilities. The Commission said that the purchases of the European belligerents had created an almost unprecedented demand for transportation, while the uncertainties of ocean transportation interfered with regular export movement and greatly delayed rail equipment loaded with export traffic. Serious congestion, delay and shortage had continued without interruption, the Commission said, throughout 1916 and the situation had again become acute in the fall on the grain-carrying and coal-carrying railroads. The Commission declared that largely increased railroad facilities were necessary to handle adequately the country's commerce.

The Commission in a report of its Car Supply Investigation, January 18, 1917 (42 I.C.C. 657), declared that the car situation had no parallel in our history; in some territories mills had shut down, prices advanced, perishable articles had been destroyed, because of the inability of the railroads to get the cars they needed and which were being held on other lines, while in other territories there had been so many cars on the lines and in the terminals that service had been thrown into unprecedented confusion. Public service companies

furnishing light, heat and power faced a possible interruption through lack of fuel.

As a result the Commission condemned the existing car service rules as to certain classes of cars, and condemned also, as entirely inadequate, the efforts which the railroad executives had made to insure observance of the existing rules. Even the three Commissioners who dissented as to the conclusion concerning the law or the carriers' car service rules, expressed themselves as "fully sensible of the gravity of the existing condition of transportation by railroad" and agreed "that the carriers ought to take hold of the situation vigorously and place plenary power in the hands of a committee to change their car service rules" as might be appropriate to meet the unusual conditions.

It results, therefore, that, despite the favorable returns from railroad operations for the year 1916, the railroad situation was in an extremely critical condition at the time we entered the War in April, 1917. Our entry into the War foreshadowed a tremendous increase in railroad traffic, although the railroads were not able satisfactorily to handle the traffic already demanding their services; it foreshadowed further serious scarcity of labor, materials and supplies and further increase in the cost of capital, and increased difficulty in dealing with the labor situation.

How was the transportation crisis, already so serious, to be remedied so as to meet in an effective way the even greater difficulties of the intensified crisis incident to our entry into the War?

CHAPTER II

THE OPERATIONS OF THE RAILROADS IN 1917 UNDER THE RAILROADS' WAR BOARD

THE railroads entered 1917 laboring under a heavier traffic than they had ever had before. This traffic was concentrated largely in eastern territory, because the industries to which the Allies looked for war supplies, and the coal mines which supplied those industries, were largely in that territory. Indeed, these industries and mines were largely on two of the principal railroads, the Pennsylvania and the Baltimore & Ohio. Our country's entrance into the War in April, 1917, greatly increased this transportation burden and still further intensified it in the east and particularly on the railroads already overburdened. Not only was it necessary to supply transportation for the supplies of our associates in the War, but it was necessary to provide transportation to create, equip and send forward our own armies. It was necessary to transport with the greatest possible expedition stupendous volumes of freight traffic for the construction of ships, cantonments throughout the country and additional factories, as well as to handle the increased output of factories and mines. It was necessary to increase passenger train movement in order to transport troops, to transport the increasing movement of workmen and to meet a general increased demand for passenger transportation. All this increased transportation burden would have to be met with a diminished amount of labor and material and with a diminished amount of capital for necessary enlargements of the plant, because the war activities of our country would absorb the man-power for military duty and duty in war industries and would absorb the basic materials needed for enlarging railroad capacity, and would absorb the available supplies of money and credit.

Even without these added demands of our own war necessities, the railroads had been, as pointed out in the preceding chapter, in a critical situation, particularly on account of their inability successfully to distribute and handle the car supply so as to avoid what at times amounted to an almost paralyzing congestion.

As a result of the Interstate Commerce Commission's Report of January 18, 1917, referred to in Chapter I, the railroad companies

generally had appointed on February 2, 1917, a Car Service Commission with plenary power to coöperate with the Interstate Commerce Commission. This Car Service Commission, under the chairmanship of C. M. Sheaffer of the Pennsylvania Railroad Company, began to function at Washington and thereafter and until the Government took possession of the railroads at the end of 1917 rendered highly important service.

But the Interstate Commerce Commission was still not satisfied with the degree of coöperation attained, inasmuch as certain important railroad companies had not delegated the necessary power to the Car Service Commission, and therefore called another conference of the carriers to be held in Washington on April 5, 1917.¹

But this movement was engulfed in a larger one. Just at this time, the Advisory Commission of the Council of National Defense, acting through its Chairman, Daniel Willard, President of the Baltimore & Ohio Railroad Company and Chairman of the Advisory Commission's Committee on Transportation and Communication, called the railroad executives to meet in Washington for the purpose of unifying their activities as a war measure. This meeting was held in Washington on April 11, 1917, and adopted a resolution whereby the railroads pledged themselves

that during the present war they will coördinate their operations in a continental railway system, merging during such period all their merely individual and competitive activities in the effort to produce a maximum of national transportation efficiency. To this end they hereby agree to create an organization which shall have general authority to formulate in detail and from time to time a policy of operation of all or any of the railways, which policy, when and as announced by such temporary organization, shall be accepted and earnestly made effective by the several managements of the individual railroad companies here represented.

This meeting further provided that the whole problem of coöperation with the Government should be committed to the American Railway Association's Special Committee on National Defense and that there be selected therefrom an executive committee of five members.

Practically all of the railroads with a mileage of about 260,000 miles of road submitted themselves to the direction of this executive

¹ See *Thirty-First Annual Report of Interstate Commerce Commission* (1917), page 64.

committee, which came to be known as the Railroads' War Board and which consisted of: Fairfax Harrison, President, Southern Railway Company, Chairman; Howard Elliott, Chairman and President, New York, New Haven & Hartford Railroad Company; Hale Holden, President, Chicago, Burlington & Quincy Railroad Company; Julius Kruttschnitt, Chairman, Southern Pacific Company; Samuel Rea, President, Pennsylvania Railroad Company.

Chairman E. E. Clark of the Interstate Commerce Commission and Chairman Daniel Willard of the Advisory Commission of the Council of National Defense were *ex-officio* members of this executive committee.

Resolution in full adopted on April 11, 1917, and Chairman Fairfax Harrison's statement then issued in regard thereto will be found in the appendix to this chapter.

The organization of the Railroads' War Board with its departmental committees and subcommittees is given in the appendix to this chapter. The Car Service Commission above referred to as provided for by the railroad companies generally on February 2, 1917, became and continued one of the most important arms of this War Board. The Car Service Commission's powers were greatly fortified, in practical effect, by the passage of the Esch Car Service Act approved May 29, 1917. This act was the outgrowth of the desperate car service conditions existing at the end of 1916, was passed upon the recommendation of the Interstate Commerce Commission, and gave it broad powers to enforce car service regulations and in times of emergency to supersede them by special orders. This put the Car Service Commission in position where it could appeal to the Interstate Commerce Commission for support, if necessary.

This effort of the railroads at unification was entirely voluntary. No form of guaranty was provided by the Government to protect any railroad company against any loss it might sustain as a result of low rates or high costs or as an incident to being put at a disadvantage in the process of unification through diversion of its traffic or car supply or transfer of its locomotives for the benefit of other lines.

While the railroads were being confronted with the necessity of handling the largest traffic they had ever been called upon to transport, they were suffering the disadvantage of shortage of locomotives and cars. Due to the unpromising financial situation and rising

costs, an inadequate number of new locomotives and cars had been ordered, and it became increasingly difficult to obtain even those because the Government was compelling preference to be given to the construction of locomotives and cars for use overseas. The conditions made it impracticable to order or hope to get still other locomotives and cars badly needed in large numbers. The shortage of skilled labor prevented the railroads from keeping in proper repair even the equipment they already had, particularly their locomotives.

The burdens which rested upon the railroads by reason of the demands of the Allies and the demands of our own war agencies were increased because the coastwise shipping was taken for war purposes, thus throwing upon the railroads the additional burden of transporting the traffic which had formerly moved by sea.

One of the most serious burdens was the excessive and conflicting "priority" orders of governmental war agencies such as the War and Navy Departments and the Shipping Board to secure preference in transportation.

Such agencies claimed the authority to require the railroads to afford preferred transportation for materials needed in the prosecution of the War. Under an arrangement with Army, Navy and Shipping Board officers, the Railroads' War Board on July 20, 1917, by Bulletin 22 provided for a system of "tags" for expediting the transportation of government freight. Thereafter practically all government agents throughout the country, being supplied with these tags, used them for most of the freight shipped on government account, and thus there developed a practice of virtually indiscriminate priority. As a result, a vast amount of government freight was rushed forward to destinations irrespective of the immediate necessity of the shipments and the ability of the consignees to receive and unload them. All terminals on the Atlantic Seaboard and in the eastern industrial districts, and many junction points, were clogged with cars, many thousands of which the consignees could not unload. For example, the terminals about Philadelphia and sidetracks for many miles in the interior were filled with carloads of material, such as piling, many of them from Oregon and Washington, destined to the shipyards to be constructed on the Hog Island site, long before there were any railroad tracks or other facilities at Hog Island for unloading such cars. These priority orders constituted a continuing handicap to the railroads throughout 1917 in moving the traffic.

The issuing of these priority orders by governmental agencies, such as the Army, Navy, and Shipping Board, was supposed to be authorized by the Navy Appropriation Act of August 29, 1916. An Act of August 10, 1917, authorized the President to direct transportation preferences by carriers. Under that statute Judge Robert S. Lovett was appointed as Priorities Director. The opinion, however, prevailed that he did not have the authority to annul the miscellaneous and burdensome transportation priority orders issued by the various departments and agencies of the Government. He declined to issue any such transportation priority orders himself, except in five cases of special importance, feeling that there was already a great deal too much transportation priority. The condition of uncoördinated transportation priorities at the instance of the War and Navy Departments, the Shipping Board, *et cetera*, continued and enormously increased the difficulty of railroad operation. On the Pennsylvania Railroad toward the end of 1917, it was reported that 85 per cent of its entire traffic on its Pittsburgh Division, one of the heaviest and most difficult divisions on the system, had to be handled under preference orders. Strenuous efforts were made to secure coöperation on the part of the various agencies giving these orders and toward the end of 1917 some progress in this direction was made, at least on paper, but it continued to be the fact throughout the year that railroad operations were greatly clogged by the undue use of transportation priority orders, and the absence of adequate coördination among them. The practical effect was that in order to comply with these priority directions it was necessary to do a great deal of additional switching so as to put the cars carded with priority orders ahead of those not so carded, and as the terminals became increasingly congested the difficulty of making the necessary rearrangement of loaded cars to carry out the priorities was greatly increased.

One of the conditions which embarrassed the railroad companies in their efforts to unify their operations was that any such unification was supposed to be prohibited by the Anti-trust Act and the anti-pooling provisions of the Interstate Commerce Act. Despite the feeling that these acts ought to be regarded as suspended during the war period, Congress had not suspended them and the Department of Justice was not willing to commit itself to that view. When in November, 1917, the Railroads' War Board announced the putting

into effect of a pooling arrangement east of Pittsburgh, the members of the Board were asked to see the Attorney General, who took the position that such action was prohibited by law, and he was unwilling to accede to the view that the Anti-trust Act was suspended. The conference ended without definite action, but with a feeling on the part of the Railroads' War Board that its action was regarded as of doubtful legality by the Department of Justice.

Despite these exceptional obstacles, the Railroads' War Board, through the unremitting labor of its members and the agencies created by it, accomplished substantial results in getting the traffic moved.

The Railroads' War Board improved the car service rules and their operation, facilitated the pooling of box cars, conducted an active and successful campaign for the more intensive loading of cars, and assisted in obtaining the discontinuance of over 28 millions of passenger train miles. In the effort to unify operations, there was developed the policy that a railroad would haul empty cars in order to get them into producing territory to meet emergency demands, although that railroad might not get to handle the cars back when loaded. The Railroads' War Board made progress in coördinating the handling of exports so as to diminish the blocking of port facilities, participated in bringing about the pooling of lake and tide-water coal, making marked reduction in the number of classifications of coal and consequently facilitating the prompter handling of coal in the terminals, and encouraged the timely movement of coal to the Great Lakes for transportation by the lakes to the northwest, and of ore in the opposite direction.

The railroads under the War Board's administration made an extremely creditable record in the handling of troops between military posts and to mobilization points, cantonments and Atlantic and Gulf ports. A fine record was also made in handling shipments of building material and supplies for the cantonments and for the Shipping Board.

As a result the railroads carried in 1917 the greatest freight and passenger traffic in their history. Nearly 12 per cent more passenger miles and about 9 per cent more ton miles of transportation were produced than in 1916, which had been the greatest year the railroads had theretofore had.

But despite the creditable performance, it became obvious in the

late fall of 1917 that the railroads were falling seriously behind in meeting the pressing demands for transportation, at least in the east where the war needs for transportation were the most imperative and all-embracing. The paralyzing effect of excessive and conflicting government transportation priorities continued. The accumulation of cars in terminals rapidly increased beginning in the latter part of October. The difficulties of keeping the overworked locomotives in condition became more and more insurmountable. The handling of passenger traffic was delayed to an unprecedented extent.²

An inescapable fact was that the railroad companies, despite the best intentions, could not unify themselves in practice into the single "continental railway system" in the manner contemplated by the resolution adopted by their executives on April 11, 1917. It was against human nature to expect any such complete unification. If a railroad company voluntarily surrendered traffic which it thought it could carry, the resulting loss of revenue was a loss to the company's stockholders, which was not authorized by them and not indemnified against by the Government. The same was true if a railroad company surrendered locomotives which it felt it needed and turned them over to another company which might need them more. The management of each company had to face the condition that whatever it surrendered in this way was done without compensation or guaranty against loss. It was also impossible in such a short time to overcome the competitive and individualistic instinct which characterized the management of every company. While the companies did much, they did not and could not do enough to effect a real unification of operations. It was inevitable that the Railroads' War Board had to move with the greatest caution in making proposals to the respective railroad companies that they give up without compensation their traffic or their locomotives or cars. The conditions made it extremely difficult for the War Board to give clear-cut commands without delay for explanations. It had to resort to persuasion, education, and at times almost to apology for its demands upon the railroads.

By reason of this natural reluctance we find the War Board announcing in the latter part of November, 1917, that it had just taken certain "revolutionary measures" in the direction of utilizing

² Unusually severe weather began in December, 1917, and still further complicated the situation.

the facilities of one railroad to handle the business of another.³ Yet these revolutionary measures were the very things that were essential to cope with the situation and that were within the scope of the resolution of unification adopted seven months before by the railroad executives. The fact that the War Board had been unable to bring itself at an earlier date to take such steps indicated the War Board's natural appreciation of the reluctance of the railroads to face any such abandonment of their individual rights, and the War Board's appreciation of that condition.

Although in April the railroad executives had resolved to unify their operations into a single continental railway system, and had been trying ever since to do so, the Interstate Commerce Commission's Report to Congress on December 1, 1917, showed that the unification had not been accomplished, that report said "it has become increasingly clear that unification in the operation of our railroads during the period of conflict is indispensable to their fullest utilization for the National Defense and welfare."⁴ The majority of the Commission, clearly indicating that the unification had not been realized, seemed willing to consider that there were still two methods by which it might be realized: (1) through voluntary action of the railroads (provided the Anti-trust Act and anti-pooling

³ These "revolutionary measures" included the appointment of an Eastern Operating Committee at Pittsburgh with authority to take necessary steps to effect relief in the congested districts; the establishment of an eastern open-top car pool and plans for a Lake Erie coal pool; the establishment of an Export Division in New York City to exercise control over all unmanufactured iron and steel for export (except for the U.S. Government); the initiation of plans in conjunction with the Fuel Administration for zoning coal distribution from mines to markets to prevent cross haul; the diversion of freight passing through the Pittsburgh Gateway to lines north or south and the placing of various embargoes to relieve the situation in the congested eastern manufacturing districts and at the Atlantic ports; the elimination of fast freight trains and the movement of freight trains generally with full slow-freight tonnage rating; the transfer of locomotives from one railroad to another to relieve congestion; the operation of parallel tracks of competing railroads in the congested district as a two- or three-track system; the allocation of certain traffic to certain lines for handling; and the loan from the War Department of 100 Army locomotives constructed for service in France, but not yet required overseas.

⁴ *Unification of Railroad Operation*, Special Report of the Commission, 47 I.C.C. 757.

provisions of the Interstate Commerce Act were suspended and the railroads were afforded governmental financial assistance), and (2) through the Government taking over the railroads. Commissioner McChord, however, in a vigorous dissent, referred to the efforts at voluntary coördination which the railroads had made and declared that no voluntary committee could accomplish what the situation demanded. It can fairly be said that the efforts of the railroad companies had not achieved unification. It seemed accepted on all hands that unification was essential.

The labor situation was one of constantly growing menace with which the railroad companies were not able effectively to deal, either acting individually or through the Railroads' War Board. The impetus given to the demands of railroad organizations by the successful stand taken by the train and engine organizations for the basic eight-hour day has been referred to in Chapter I. Other organizations were pressing confidently for increased consideration. The success of the shopcrafts' unions in the winter of 1916-1917 on the principal southeastern railroads has also been mentioned in Chapter I. Emboldened by this success and by other favorable conditions, the shopcrafts' unions had decided to serve notice jointly on the railroads on January 1, 1918, demanding standardization of hours of service, wages and working conditions on all the railroads and this situation faced the railroads as the year 1917 drew to a close. There were various strikes to secure union recognition, as, for example, a strike in September by the freight handlers at Kansas City on practically all lines, and a strike in October by clerks on the Atlantic Coast Line on account of the discharge of a clerk who had joined a union. Although the Atlantic Coast Line had filled the places of these strikers, it was impelled by direct request of President Wilson to restore the striking clerks to their places. Movement toward unionization was in the air. The increasing scarcity of labor, the competition of the war industries for the available labor, and the obvious need for increased wages, gave exceptional opportunity to press such demands with success. If the train and engine men could be successful to the point of forcing Congress to establish the basic eight-hour day, why could not other organizations gain important concessions either directly from the railroads or through the intervention of the executive or legislative branches of the Government? No adequate machinery for dealing with these problems existed. While there was

provision for mediation and conciliation, there was no effective provision for arbitration or fact-finding. On November 17, 1917, the Railroads' War Board made this definite commitment in a communication to the Federal Commissioner of Mediation and Conciliation:

As no interruption of continuous railroad operation can be tolerated under war conditions, we are ready, should any crisis now arise, unreservedly to place our interests in the hands of the President for protection, and for disposition as he may determine is necessary in the public interest.

While this declaration virtually left it to the President to fix wages and working conditions, and determine all such questions as recognition of the unions, there was still no provision to assure the railroads the revenues necessary to meet the increased costs which would likely result. The rapid turnover of labor was seriously impairing efficiency, the prices of materials and supplies were rapidly rising, and the margin of profit was steadily dropping. It was represented to the Interstate Commerce Commission that for the first nine months of 1917, although operating revenues for the eastern carriers had increased \$123,000,000 as compared with the corresponding period of 1916, net operating income had decreased \$57,000,000. The President of the Pennsylvania Railroad Company declared at the same time (November 5, 1917):

The railroads are operating with insufficient and necessarily inefficient labor due largely to inexperience. This in itself is expensive and will be relatively more so during the winter months. Locomotives improperly prepared for road service break down en route involving delays to traffic and expense in rectifying which, if the work had been properly done, would have been avoided. (Vol. 44, pp. 6288-6289. The Fifteen Per Cent Case.)

He also declared that the eastern carriers were encountering continuous increases in the cost of labor, fuel, supplies, taxes, and new capital, were unable to secure and retain efficient labor, were being forced to curtail maintenance expenses, due partly to inability to secure necessary labor and material, and were unable to provide the facilities which were essential for the traffic.

Mr. Kruttschnitt, of the Railroads' War Board, in a memorandum of December 22, 1917, stressed the increasing difficulty of keeping equipment, particularly locomotives, in proper repair, on account of

the depletion of shop forces, "some reporting a shortage in numbers of as much as 12½ per cent, and all reporting a much greater fall in efficiency due to the necessity of recruiting with unskilled men," and he emphasized that the great increase in movement of traffic had been accomplished "with forces greatly depleted as to number and weakened as to efficiency."

Not only was there no guaranty from the Government to safeguard the earnings of the carriers, but the Interstate Commerce Commission had manifested the greatest reluctance to grant increases in rates. In June, 1917, the applications of the railroad companies for increased rates throughout the country were denied except on coal, coke and iron ore, and except an increase of class rates by eastern carriers. (The Fifteen Per Cent Case, 45 I.C.C. 303.) At that time the Commission took the position that results of operations had been unusually favorable in 1916 and that there was not yet any sufficient indication that the revenues on the heavy current business would not enable the railroads to meet their necessities. In the fall the railroad executives sought a rehearing, but before action was taken thereon the Commission made its report on unification and clearly implied that solution of the carriers' troubles must be found primarily through some form of effective unification for war purposes, and so action upon the application for rehearing of The Fifteen Per Cent Case was not taken.⁵

Thus, despite creditable achievements by the railroads under the guidance of their War Board, December, 1917, was drawing to a close with the railroads falling further and further behind in meeting the country's war-time necessities. Unification to make existing facilities go as far as possible had not been achieved. Without government intervention the railroads were not able to handle the labor situation or to protect their revenues or to get adequate capital for indispensable improvements, or even to get needed materials.

⁵ It is suggestive of these conditions confronting the railroads at the end of 1917 that in the first four months of 1918 the net railway operating income as shown by the current accounts was \$110,344,733 less than for the corresponding period of the year 1917. During these four months of 1918 the railroads were still being operated by the railroad executives, though for the Government Railroad Administration. The wage levels were still unchanged in any substantial sense because the first wage increases made by the Government did not appear in the accounts until after the end of the first four months of 1918.

It was essential to provide means for handling and meeting the demands for increased wages; it was highly important to make provision to protect the owners of the railroads from a condition of stationary rates and rising costs, and to insure them through some adequate guaranty against the losses due to diversions of traffic and rearrangement of facilities which would be inevitable in event of effective unification. Experience had demonstrated that these objects could not be achieved through any form of purely voluntary cooperation among the railroad companies, unaided by effective government guaranties. In addition, there was prime need for untangling the situation created by the excessive and conflicting government priorities, which were paralyzing transportation and to do this it appeared necessary to put government authority directly back of the transportation machine.

On account of these conditions the Government took possession and control of the railroad systems of the country, for war purposes, at the end of December, 1917. It is an interesting fact that in the other belligerent countries, war control of the railroads had been one of the first war measures. But in the United States, definite war control of essential private industries had been extensively entered upon before the Government took control of the railroads.

CHAPTER III

THE PRESIDENT'S PROCLAMATION, THE RAILROAD ADMINISTRATION'S ORGANIZATION AND THE CONGRESSIONAL LEGISLATION

The Proclamation.

ON December 26, 1917, the President took possession and control of the railroads by Proclamation.¹ In an accompanying explanatory statement the President declared that unification of the railroads under a single authority was necessary for the complete mobilization of the country's resources in order to meet the requirements of the War. He said that the Committee of Railroad Executives (the Railroads' War Board) had acted with patriotic zeal and ability, but that there were insuperable obstacles to unification of the railroads through any such process and that the Committee of Railroad Executives was without power to effect proper compensation or to readjust earnings to protect those roads which suffered from complying with the Committee's orders.

The President's Proclamation and accompanying statement will be found in the appendix to this chapter. This government control of the railroads was entered upon by virtue of a provision in the Army Appropriation Act approved August 29, 1916, granting authority to the President to take possession and control of any system or systems of transportation in time of war. The Proclamation extended to all railroad systems of transportation and systems of coastwise and inland transportation controlled thereby, and included sleeping and parlor car lines. Street electric passenger railways and interurban railways were excluded from the Proclamation.

William G. McAdoo, the Secretary of the Treasury, was appointed Director General of Railroads. He was directed to enter upon negotiations with the several companies looking to agreements for just and reasonable compensation based upon the average annual net operating income for the three years ending June 30, 1917.

¹ The Government's resulting possession and control of railroad and other systems of transportation will be frequently referred to in this book as "Federal Control."

By the Proclamation the Government's control was to be effective at noon on December 28, 1917, but for purposes of accounting was to date from twelve o'clock midnight on December 31, 1917.

The Organization of the United States Railroad Administration.

Transportation problems of the most critical character, especially in the east, confronted Director General McAdoo when he assumed his duties on December 28, 1917. The handling of these problems and the building up of an organization to handle them had to be dealt with simultaneously. Federal Control had come so suddenly that there had been no prior opportunity to plan either as to problems or character of organization. It will be convenient, however, to deal in this chapter with the organization which was created and which came to be designated as the "United States Railroad Administration."

On December 28, 1917, Mr. McAdoo, in shaping the organization for carrying on this work, availed himself of the advice and assistance of the members of the Interstate Commerce Commission, John Skelton Williams, who as Comptroller of the Currency was associated with Mr. McAdoo in the Treasury Department, A. H. Smith, President of the New York Central Railroad Company, Judge Robert S. Lovett, Chairman of the Union Pacific Railroad System and also a member of the War Industries Board and Director of Priorities, John Barton Payne, General Counsel of the United States Shipping Board Emergency Fleet Corporation and also a member of the Tax Appeals Board recently established in the Treasury Department, Edward Chambers, Traffic Vice-President of the Atchison, Topeka & Santa Fe Railway Company and Traffic Assistant to Food Administrator Hoover, and the writer. Another adviser promptly availed of, who devoted himself unsparingly to Federal Control problems, though never holding an official position in connection therewith, was Henry Walters, Chairman of the Board of Directors of the Atlantic Coast Line Railroad Company and of the Louisville & Nashville Railroad Company.

A step immediately taken upon the Director General's assumption of his responsibilities was to vest in A. H. Smith, President of the New York Central Railroad Company, supervision over operations of the railroads in the eastern part of the country where the congestion of traffic was most critical. On January 18, 1918, this territory

was defined as the Eastern Region and Mr. Smith was made its Regional Director as below explained.

On December 31 the Director General designated as one of his advisers Hale Holden, President of the Chicago, Burlington & Quincy Railroad Company, who had been a member of the Railroads' War Board throughout its existence, and took over the War Board's various subcommittees and the information and records of its eight months' work. Mr. Holden, as an adviser, remained for a few weeks until he felt compelled to return to Chicago, whereupon he was succeeded by Carl Gray, at that time President of the Western Maryland Railway Company. The personnel of the War Board's subcommittees remained, almost without exception, with the Railroad Administration. Mr. Holden later became a Regional Director of the Railroad Administration.

The Central Organization took final shape in the early months of 1918 and was made up of Divisions of Law, Finance and Purchasing, Operation, Traffic, Labor, Public Service and Accounting, Capital Expenditures, and Inland Waterways, all reporting to the Director General of Railroads.

In January, 1919, Mr. McAdoo resigned as Director General and was succeeded by the writer who, up to that time, had been Assistant Director General.

The organization of the Central Administration is shown in detail in the appendix to this chapter.

Regional Organizations.

In addition to the Central Organization, it was deemed necessary to divide the railroads of the country into regions and to place each in charge of a Regional Director. At first there were only three regions, the Eastern, Western and Southern. About June 1, 1918, the Eastern Region was subdivided into the Eastern, Allegheny and Pocahontas Regions, and the Western was subdivided into the Northwestern, Central Western and Southwestern Regions. After the adoption of the plan of having seven regions, the Regional Directors were as follows:²

² The appendix to this chapter shows the organization of the various divisions of the Central Organization of the Railroad Administration and also describes the various regions which were created and shows the principal railroads embraced in each.

Eastern Region, A. H. Smith, formerly President of New York Central Railroad Company, office at New York.³

Allegheny Region, C. H. Markham, formerly President of Illinois Central Railroad Company, office at Philadelphia, Pa.³

Pocahontas Region, N. D. Maher, formerly President of Norfolk & Western Railroad Company, office at Roanoke, Va.

Southern Region, B. L. Winchell, formerly Director of Traffic, Union Pacific System, office at Atlanta, Ga.

Northwestern Region, R. H. Aishton, formerly President of Chicago & North Western Railway Co., office at Chicago, Ill.

Central Western Region, Hale Holden, formerly President of Chicago, Burlington & Quincy Railroad Co., office at Chicago, Ill.³

Southwestern Region, B. F. Bush, formerly President of Missouri Pacific Railway Co., office at St. Louis, Mo.

Severance of Corporation Connections.

About April 1, 1918, it was decided that all railroad officers connected with the Central and Regional Administrations should terminate their official connections with the railroad companies. As the result, the members of the Central staff as well as the Regional Directors and their staffs severed their railroad connections and became exclusively officers of the United States Railroad Administration.

Management of the Respective Railroads.

The President's Proclamation establishing Federal Control provided that the Director General might perform his duties so long and to such extent as he should determine through the Boards of Direc-

³ Toward the end of Federal Control several changes took place, due to the Regional Directors returning to their corporations. In June, 1919, Mr. Smith was succeeded as Regional Director of the Eastern Region by his assistant, A. T. Hardin, who before Federal Control had been Senior Vice-President of the New York Central Railroad Company. In October, 1919, Mr. Markham was succeeded as Regional Director of the Allegheny Region by his assistant, L. W. Baldwin, who before Federal Control was Vice-President and General Manager of the Central of Georgia Railroad. In February, 1920, Mr. Holden returned to the corporation and was succeeded by R. H. Aishton, whose jurisdiction was extended to include both the Central Western and Northwestern Regions.

tors, receivers and officers of the systems of transportation which were taken over. Accordingly, at the outset, the Director General made the officers of the railroad corporations his representatives in the operation of the railroads. On March 28, 1918, by General Order No. 16, it was ordered, for the purpose of avoiding confusion, that the president of each company should be treated by the United States Railroad Administration as the company's principal executive authority, and that neither Chairmen of the Boards of Directors of such companies nor committees of such boards should exercise functions connected with railroad operation under Federal Control.

However, the conclusion was later reached that it was not satisfactory to look to the presidents of the railroad companies and the subordinate officers of those companies to operate the railroads for the Government. It was felt that the officers of each of these corporations would have inevitably a divided allegiance,—on the one hand to their respective corporations to protect their interests in their relationships with the Government, and on the other hand to protect the interests of the Government as against the corporations. So it was decided to appoint for each railroad property a Federal Manager, who generally had been the principal operating officer of that railroad. Announcement to this effect was made May 21, 1918. Each such Federal Manager was required to resign all official connection with the railroad company and to become exclusively the representative of the Railroad Administration. Officers under the Federal Manager likewise severed their connection with the railroad corporations to become exclusive representatives of the Government. It was desired that the Federal managers and their subordinates should be in a situation analogous to that of the ex-railroad officers who had become members of the Central staff and the Regional staffs. This plan was made effective about June 1, 1918. Thereafter the officers remaining with the railroad corporations ceased to be in any sense representatives of the Railroad Administration.

Non-political Character of Railroad Administration.

As was true of the governmental war agencies generally, the Railroad Administration was entirely non-political. The Directors of the Divisions, the Regional Directors, the Federal Managers and the staffs of all these officers, as well as employees in general, were selected without any regard whatever to politics and generally without

any knowledge as to the political leaning of the appointees. The employees on the various railroads were selected by the Federal Managers or their subordinate officials without dictation or suggestion from the Railroad Administration. It intervened only to urge the Federal Managers from time to time to make sure that an unnecessary number of employees was not employed.

Salaries.

The Director General was confronted with the problem as to what salaries should be paid by the United States Railroad Administration to railroad officers who severed their railroad connections. He decided that as to the Central Administration the Assistant Director General and the Directors of Divisions should receive salaries of \$25,000 a year. This meant that several members of the Central Railroad Administration gave up corporate positions in which they had been paid \$75,000 or more per year in order to accept the government work at \$25,000 a year. Those members of the Central staff who already held governmental positions, Mr. McAdoo, Mr. Prouty and Mr. Williams, received no salaries from the Railroad Administration.

As to the Regional Directors, the Director General felt that he was justified in fixing salaries more nearly approximating salaries paid to presidents of railroad companies, and accordingly salaries of \$50,000 were fixed for the Regional Directors of the Eastern, Allegheny, Northwestern, Central Western and Southwestern Regions; and salaries of \$40,000 were fixed for the Regional Directors of the Pocahontas and Southern Regions. The salaries of the District Directors were fixed at \$25,000 to \$35,000. These salaries, however, meant in some instances important reductions from the salaries theretofore enjoyed.

As to Federal Managers, the Director General decided that the maximum salary should be \$35,000, and many of the salaries were fixed at lower amounts. In some instances Federal Managers gave up salaries of \$75,000 per year paid by the corporations.

The Federal Control Act.

While the President had taken possession of the railroads under the broad and brief provision of the Army Appropriation Act of

August 29, 1916, more comprehensive legislation was desired in order adequately to cover this extraordinary situation, constituting the greatest transfer of possession and control of privately owned property that the world had ever known. Hence what is known as the Federal Control Act was passed by Congress and approved March 21, 1918.

This act, following what the President had already announced in his proclamation, specifically authorized the President to enter into agreements guaranteeing the respective carriers annual compensation not exceeding their respective average annual net railway operating income from operation in the three years ending June 30, 1917.⁴ Provision was made for adjustments of the compensation to cover enlargement of a system during the three-year period, or other exceptional conditions. The act provided that claims for just compensation not so agreed upon might be submitted to referees appointed by the Interstate Commerce Commission, and if necessary carried to the Court of Claims. The act provided that the agreements with the carriers should contain appropriate provisions for maintenance during Federal Control and that during Federal Control no carrier, without the approval of the President, should pay any dividend in excess of what had been its regular rate during the three years ended June 30, 1917. The President was given power to require any carrier to make additions and betterments; and was empowered to initiate rates subject to modification by the Interstate Commerce Commission upon complaint and hearing, the act indicating that it was the intent that the President should have power to fix rates sufficient to defray the expenses of the carriers under Federal Control, operating as a unit. The act also made an appropriation of \$500,000,000 to be used for the purpose of paying the expenses of Federal Control and to provide necessary terminals, rolling stock, additions and betterments, *et cetera*. A copy of the Federal Control Act will be found in the appendix to this chapter.

Various provisions of the act will be discussed in greater detail in succeeding chapters.

On March 29, 1918, the President delegated to the Director Gen-

⁴ The net railway operating income as defined by the Federal Control Act was the balance of railway operating revenues remaining after deducting operating expenses, taxes, uncollectible railway revenues and deducting or adding the net of equipment rents and joint facility rents.

eral of Railroads, pursuant to authority contained in the Federal Control Act, full authority to execute the agreements with the carriers for compensation, *et cetera*, and to issue orders in connection with Federal Control and to exercise all powers which under that act or any other act the President was authorized to perform in relation to the subject matter.

A separate chapter will be devoted to the contracts between the Government and the carrier corporations.

CHAPTER IV

THE MOVEMENT OF THE TRAFFIC IN THE WAR YEAR OF 1918

IN moving the traffic, two outstanding policies and accomplishments of Federal Control during the war year of 1918 were (1) the control of shipment of traffic so as to prevent its clogging up terminals and wasting equipment and other facilities and (2) unified direction of the handling and maintenance of equipment and other facilities. What had been impracticable in these directions under private control became practicable by the very nature of Federal Control.

Under private control the railroads were subject to many governmental masters even in peace time and more so in war time. If they sought any sort of governmental support, either material or moral, a very heavy burden of proof rested on them to show they clearly needed what they sought. In negotiation with government representatives, the railroads were at a distinct disadvantage, because the Government had the last word, and particularly so in time of war.

All this was changed by Federal Control. The Government Railroad Administration became as authoritative as the strongest of the government war agencies and as much a part of the Government as the War or Navy Department. Mr. McAdoo, as Director General of Railroads, thereby became a member of the President's War Cabinet, which consisted of the heads of the War Department, Navy Department, Shipping Board, Food, Fuel and Railroad Administrations and other war agencies. He was also Secretary of the Treasury and as such a leading member of the permanent Cabinet. He could speak with the full authority of the Government on behalf of the interests of railroad operation. Railroad management had as direct access to the President as any other government war agency enjoyed. The Director General could and did successfully demand of the other government departments what the railroads needed to enable them to do their war job. They could get their employees better protected against being drafted into the military forces. The railroads were lifted out of the operations of the Anti-trust Act and were no longer

the subject of misgivings on the part of the Department of Justice. Under Federal Control the railroads could get the capital they needed for making essential improvements for war purposes and the materials necessary for those purposes, and the money needed for increased wages and other operating costs could be obtained from the Government if railroad revenues were insufficient.

Control over Shippers and Shipments.

This governmental status was decisive in controlling the situation so as to eliminate the accumulation of traffic on the road as well as in the terminals, whereas theretofore that traffic had caused congestion that at times threatened transportation paralysis.

A condition of paralysis had almost been reached in some crucial areas in the east at the beginning of Federal Control, due to the congestion arising from the conditions explained in Chapter II, particularly the conflicting priority orders which had an especially deadlocking effect in the exceptionally bad weather. On account of the Railroad Administration's authoritative status it was able promptly to do away with excessive and conflicting priorities in the movement of traffic. The first step taken in this direction at the very beginning of Federal Control was to disregard priorities in badly congested terminals and move out and forward cars to destination in the order in which they could be reached in the overcrowded railroad yards. The Railroad Administration promptly took steps to develop an orderly system whereby priorities were determined by it or with its assent, so that adequate, rather than excessive and indiscriminate, priorities could be accorded to the necessities of the war agencies interested in transportation.

During 1917, no matter how rapidly the railroads might move the traffic offered, the transportation situation was not cleared up because the shippers and not the railroads determined what traffic should be shipped, and did so regardless of whether it could be unloaded at destination. The government agencies, such as the War and Navy Departments and Shipping Board, further complicated the situation as to their traffic, which was of enormous volume, by requiring it to be expedited in movement over the railroads regardless of whether it could be unloaded at destination. The railroads attempted to meet the resulting congestion by an elaborate system

of "embargoes," that is, prohibitions against traffic being received by certain railroads whose lines or terminals were already congested. But these embargoes had to give way from time to time to the force of government priority orders, and besides, when the embargoes were lifted new waves of traffic came surging on the particular railroad regardless of whether such new traffic could be promptly disposed of at destination, and then the trouble began again.

The Railroad Administration, by virtue of its governmental non-competitive character, succeeded in enforcing a "permit system" by which traffic was controlled at the source. By this system traffic could not be loaded into railroad cars until adequate assurance was given that it could be promptly unloaded at destination, and in this way there was eliminated the holding of cars in terminals for indefinite periods, amounting sometimes to weeks or months, until consignees could unload. Indeed such conditions had resulted in the filling up of sidetracks as far west as Chicago or even further west with cars loaded with export material which could not move because the facilities further east were congested with traffic likewise awaiting unloading at eastern terminals. No longer could an exigent representative of a war agency such as the Shipping Board force the immediate loading and movement of carloads of traffic when the conditions at destination were unknown or threatened long delay in unloading.

One of the most serious handicaps to speedy unloading at eastern terminals had been in connection with export shipments for which no ships were available on arrival at the seaboard. This meant serious tying up of railroad cars and terminal space. The Railroad Administration, acting in conjunction with the War and Navy Departments, organized an Exports Control Committee in June, 1918, on which there were representatives of these three agencies as well as a representative of the Allies and a representative of the Shipping Control Committee which had control of all shipping both for the United States and the Allied Governments. This committee was a development of the Export Division of the General Operating Committee of Eastern Railroads organized by the Railroads' War Board in December, 1917, and was highly successful in insuring the proper balance between rail traffic on hand at the seaport for export and ships at the seaports to take that traffic. Its success was in large part due to the fact that the Railroad Administration would not permit

traffic to be loaded into cars until assured ships would be available at the seaboard.

To insure full coöperation among the various government agencies interested in transportation, the Railroad Administration's Division of Traffic appointed expert traffic men under the designation of "Managers of Inland Traffic," and one of these was assigned to each of the interested government departments, that is, War Department, Navy Department, Fuel Administration, Food Administration, U.S. Shipping Board Emergency Fleet Corporation and War Industries Board.

Through the close contacts thus established, an exceptionally cordial and effective coördination was secured in the handling of war traffic. This put an end to the burdensome and paralyzing priorities which prior to Federal Control had been imposed upon the railroads by the different war agencies of the Government and in some instances by many different representatives of the same war agency.

Another instance of control of traffic was by the joint work of the Fuel and Railroad Administrations in zoning the supply and shipment of coal so as to prevent its movement beyond the limits of the zone established for the mines at which it was produced, thus eliminating cross hauls and unnecessarily long hauls and saving transportation energy.

Not only was the Railroad Administration able to deal more effectively than the private railroad managements with other governmental departments, but it also had, up to the Armistice, an especially strong position in dealing with private shippers. One of the chief problems of the Railroad Administration was conservation of the existing supply of freight cars. Although 100,000 new cars were ordered in 1918, delivery could not be obtained in time for the heavy fall traffic. It was therefore necessary to meet the increasing demands for transportation by making more effective use of the existing supply of cars. An active campaign was undertaken among the shippers to increase the loading per car by changing the sizes of containers, double and triple tiering cars and in every way trying to make one car do the work of two. The Railroads' War Board had successfully inaugurated such a movement in 1917. As a result of the hearty coöperation from all concerned the average car load increased 2.2 tons or 8 per cent for the first ten months of 1918 as compared with the

same period of 1917, which had shown a corresponding increase over 1916.

Along this same line of endeavor was the "sailing day plan" for handling less-than-carload freight under which shipments of less-than-carload or package freight from a large center to smaller points were concentrated on certain specified days instead of being handled each day, irrespective of the quantity to be shipped. This plan had the advantage of providing sufficient tonnage for full carloads from point of shipment to destination thus avoiding transfer at intermediate points. It was estimated that this plan when fully worked out would save the rehandling of 3,600,000 tons of package freight annually in addition to the more effective utilization of the freight car equipment.

The Handling of the Available Transportation Facilities.

One of the gravest difficulties at the beginning of Federal Control was the shortage and the poor condition of locomotives, particularly in the east where the heaviest stress had been felt.

The shortage was due largely to the fact that the construction and delivery of 3,400 locomotives which had been ordered by the railroads were postponed in 1917 so as to admit of the prior construction and delivery of over 3,600 locomotives for the use of ourselves and our Allies in Europe. With no new locomotives being delivered, and the old ones being worked beyond any reasonable limit, without adequate time even for running repairs (and without adequate shops or shop forces on many railroads to make repairs), the situation as to locomotives was becoming more critical day by day.

The Railroad Administration adopted several expedients to meet the situation. It leased from the War Department 200 locomotives, which had been constructed for the Russian Government, but which could not be delivered owing to conditions in Russia, and 135 light locomotives built for service to France but not immediately needed there. Steps were also successfully taken to lift the ban on the construction of the locomotives which the railroads had ordered, and as these were constructed, no matter for what railroads, they were at once put into service on the railroads where the need was greatest. In addition 215 locomotives were diverted to the eastern railroads

most in need, being taken from other eastern railroads where the need was less. The Railroad Administration was thus able to add promptly several hundred locomotives to the inadequate supply on those eastern railroads on which the congestion was most severe, and between 400 and 500 were so added in the first two months of the year.

But the principal accomplishment was in expediting the repair of the locomotives already in service and on many of which repairs were long overdue. The shortage in shopmen was met by securing an agreement with the mechanical crafts to waive their contract privileges on many of the railroads for the limitation of the number of hours of work per day. Railroad shops on many important lines were placed on the basis of 70 hours a week and on other lines at 60 hours a week, thus securing an average increase of 16 per cent in shop hours. The drift of shop employees to the war industries paying higher wages was partially stopped by the Director General's promise that railroad wages would be readjusted as soon as possible, the readjustment to be retroactive to January 1, 1918. Railroad mechanics were placed on a preferred list to prevent their being drafted into military service at least until their presence was actually required in the military forces.

In view of the inadequacy of shop facilities on some of the railroads and the necessity for expediting repairs of all unserviceable locomotives, those locomotives needing heavy repairs were generally sent to the nearest available repair shop regardless of ownership of shops or locomotives. This was done to the extent of 2,280 locomotives during 1918.

Shortages in materials and supplies required for locomotive maintenance were overcome by arrangements with the Priorities Division of the War Industries Board. Vigorous efforts were made to prevent usable material being sold as scrap, additional reclamation plants were established and wherever possible old material was repaired and used again.

As a result of these policies, the number of heavy repairs to locomotives from August 3 to December 28, 1918, increased about 24 per cent over the corresponding period of the preceding year (comparable records not being available for the period of 1918, prior to August 3).

The making of running repairs was facilitated by the common use of locomotive terminal facilities so as to overcome the absence of

adequate facilities on some of the roads for large modern locomotives. For example, at the beginning of Federal Control, it was found in some localities that roundhouses built twenty years before were called upon to take care of locomotives twice the size of those for which the stalls had been designed, with the result that running repairs had to be made out-of-doors under severe weather conditions, resulting on some occasions in freezing and bursting of steam pipes, air pumps and even cylinders.

The improvement in locomotive maintenance in the war year of 1918 was marked. During that year, the heaviest freight and passenger traffic on record had been handled by the railroads, yet on November 15, four days after the Armistice was signed, there were stored in serviceable condition 1,021 locomotives, and by December 31, 1918, this number had been increased to 1,384. On the other hand, on November 15, 1917, the number so stored was only 528, and even this reserve had disappeared completely by December 31, 1917. This fact affords one of the most striking illustrations of the advantages possessed and availed of by the Railroad Administration. Under private control, in the face of the obstacles which have been referred to, locomotive power had got to the point at the end of 1917 (when confronted with constantly increasing war tasks), where no reserve whatever was on hand or in sight. But in 1918, although successfully handling the war traffic, an appreciable reserve was built up.

The Railroad Administration established standard weekly locomotive condition reports whereby it was kept informed of the situation of locomotive power throughout the country and locomotives needing repairs were promptly assigned to the nearest available repair shop. A standard classification of repairs was established under which the repairs to locomotives were reported by all railroads, thus permitting an intelligent comparison of locomotive condition and shop output on individual railroads.

Similar methods were adopted to insure the maintenance of freight and passenger cars in a condition to handle traffic. But while it is true that at the end of 1917 the condition of freight cars was far from good, due to shortage of shop forces and also to the fact that in congested areas many cars could not be unloaded and sent to the shops, and were kept long after they should have been repaired, the fundamental difficulty with the freight car situation was that cars

in good condition for further service could not be promptly unloaded and returned to service, so that car shortages reached unprecedented proportions. As the Railroad Administration was able to, and did, exercise effective control over the shipment of traffic, and prevented its being loaded unless it could be unloaded at destination, car congestion and car shortages practically disappeared in 1918.¹

In view of the business difficulties incident to the prompt loading and unloading of freight traffic and its warehousing or other disposition, shippers and consignees were under a strong temptation, especially on account of the uncertainties and pressure of business under war conditions, to hold freight cars too long after they had been furnished for loading and to hold traffic in the cars too long after its arrival at destination. To discourage such improper practices and to effect the prompt release of equipment, the demurrage rules were changed by the Railroad Administration in January, 1918, so as greatly to increase the charges for holding cars for loading or unloading beyond the customary free time. These charges were \$3 per car (itself an increase over the pre-war charge) for each of the first four days after free time, \$6 for each of the next three days and \$10 for each succeeding day. The effect was a considerable increase in the supply of equipment.

Unified control was established over the distribution of refrigerator and tank cars owned by private car lines which had not been taken over by the Government and the movement of these cars was coordinated with those belonging to the railroad and private car lines taken over. As a result there was a greatly increased utilization of this equipment.

The elasticity of unified operation in the war emergency was illustrated by the handling of foodstuffs for the Food Administration in February and March, 1918. The Food Administration's program called for forwarding approximately 1,160,000 tons of food of all kinds per month to the Allies. Only about 750,000 tons had been forwarded in January, and early in February the prospect was that at the then rate of progress only 500,000 tons would be forwarded in February. The situation had been complicated by the extraordinary congestion of traffic existing at the beginning of Federal

¹ But on account of the extreme congestion at the beginning of Federal Control, and the unprecedentedly severe winter, car shortages continued very heavy until after the end of April.

Control and by the unprecedented severity of the winter. Early in February the matter was brought earnestly to the attention of the Railroad Administration by the Council of National Defense, the Food Administration and the representatives of the Allies. Vigorous steps were taken at once to improve these conditions. Empty box cars were moved preferentially from all portions of the east and south into the western grain states, with the result that by March 15 the vessel capacity of the Allies had been more than satisfied and the situation did not thereafter present any embarrassment.

Marine Department.

Another advantage of unified control of railroads was the co-ordination of the marine operations of the individual lines. A number of railroads prior to Federal Control operated coastwise steamship lines and steamers on the Great Lakes. These lines were taken over by the Government as a part of the owning railroad's system of transportation. There were also four independent coastwise steamship lines which were taken over by the President's Proclamation on April 13, 1918, and relinquished on December 6, 1918. The railroad-owned steamship lines were retained until the end of Federal Control.

Although these companies had a combined fleet of 112 ships, 32 of them were in the service of the War and Navy Departments and one in the service of the Italian Government. The coastwise operations were seriously interfered with by the fear of German submarines, making it necessary to run without lights and make long detours. Notwithstanding these difficulties the greatly reduced fleet under centralized control was able to handle promptly through southern Atlantic ports, a large tonnage of cotton for New England mills and of raw materials for eastern war industries, thus relieving to this extent the congested rail gateways. By the consolidation of the coal-carrying fleets of tugs and barges of the Reading, Lehigh Valley, Erie and New York, Ontario & Western, movement of coal to New England was promoted and a serious shortage of fuel in that section was averted.

The Cape Cod Canal, privately owned and operated, was an important section in the inside route from New York to New England which was extensively used on account of German submarines. On account of diversion of dredging equipment during 1917 to govern-

ment uses, the owners had been unable to provide much needed dredging and the formation of shoals had reduced the navigable depth at mean low water from 25 feet to 17 feet. To remedy this situation the canal was taken under Federal Control by Proclamation effective July 25, 1918, and an extensive program of dredging, piling, bank protection and other maintenance and betterment work was immediately undertaken.

F. C. Wright, Assistant Director of Operation, previously Vice-President of the Bangor & Aroostook Railroad, was in charge of the Marine Department during the entire period of Federal Control.

The Unprecedented Winter.

An account of the handling of transportation in 1918 would be incomplete unless it referred to the phenomenally difficult weather which seriously obstructed railroad operations in January and February. This matter was described as follows in the annual report for 1918 by A. H. Smith, Regional Director for the Eastern Region:

During January and the early part of February the weather conditions in the eastern territory were the most severe ever recorded. With abnormally low temperatures, ranging from 5 degrees to 30 degrees below zero, accompanied by high winds, reaching a velocity of 70 miles per hour, blizzards of snow and sleet following one another with such frequency that recovery from one was not possible before another was upon us, with yards buried deep in snow and ice, main tracks blocked, passenger trains abandoned and freight traffic practically paralyzed, the railroad forces struggled to keep going the flow of food, munitions, and fuel so vitally essential to the successful conduct of the war and to the communities in the eastern territory dependent thereon.

Men had their hands, feet, and faces frozen digging out trains stalled on the line or endeavoring to get trains over the road; office, shop, and other forces turned out voluntarily to help shovel snow and ice from yards and switches, and officers and employees remained on duty for long periods under the most trying conditions without question, reflecting a spirit of self-sacrifice in the common cause and a determination to contribute as fully as possible in bringing the war to its successful conclusion. There were many anxious hours when it appeared that an indefinite freezing up and suspension of operation would be the outcome, but with each recurring storm the problem of keeping the through lines open was immediately attacked and while at times it was necessary temporarily to abandon all train operation, the essential food, fuel, and muni-

tions were moved in the necessary quantities to supply domestic requirements as well as to cargo and bunker the large number of steamships which were carrying our Army overseas and supply them and our Allies with the things necessary for carrying on the War.

General Results as to Freight Traffic.

As a result of these methods, the railroads, aided by the water carriers, while maintaining a performance at virtually a maximum level, steadily improved their position as to car shortages and abnormal accumulation of traffic in terminals. At the time of the Armistice they were able to function practically at maximum capacity (allowing of course for reduced capacity on account of weather conditions as winter approached), whereas in the corresponding period the year before, the railroads, largely on account of lack of control over the shippers, found their capacity on a rapidly descending scale.

The car shortage in 1917 reached its highest point in May, 1917, the shortage amounting to 164,000 cars, which was also the highest point in the history of the railroads of which we have record. During the summer months of 1917, the shortage was reduced, but began to rise again in the fall and reached 150,000 cars in November, 1917. But in November, 1918, despite the enormous traffic handled throughout the year, the car shortage was less than 15,000 cars. The accumulation of freight cars in terminals in excess of normal had reached about 90,000 cars in November, 1917, and had acquired a momentum that carried it steadily upwards to about 200,000 cars in February, 1918, by which time the Railroad Administration began to get control of the situation. The unprecedented winter of course contributed largely to this situation. The accumulation was soon reduced to manageable proportions and in November, 1918, was about 40,000 cars. The movement of freight traffic as reflected by the net ton miles per mile of road indicates that in 1917, despite the steadily increasing demand for transportation, the performance was dropping substantially almost month by month beginning with the month of July, whereas in 1918, up to October (the last full month of war traffic), the performance was continuing at practically the maximum level. This again illustrated that the advantages possessed by the Railroad Administration enabled it as the year 1918 progressed to handle the war traffic in substantially uniform volume,

while the disadvantages of 1917 resulted in the railroads steadily losing ground in the latter part of the year until they had reached a critical situation by the end of December in that year.

Passenger and Troop Movement.

In 1918 the railroads handled a larger passenger traffic than ever before. Indeed in 1917 the passenger traffic had greatly increased over any preceding year, passenger miles being 14 per cent more than in 1916, the highest preceding year. Through intensive consolidation of passenger service and the elimination of unnecessary passenger train miles, the greater business in 1917 was handled with approximately the same number of train miles as in 1916. In 1918, there was a further increase in business, passenger miles being 8 per cent greater than in 1917, but by further consolidation of service and elimination of unnecessary train miles, the traffic was actually handled with 8 per cent less train miles than in 1917.

The Troop Movement Section of the Division of Operation, with substantially the same organization as in 1917, continued the effective transportation of the troops to the training and concentration camps and from these camps to ports of embarkation.

CHAPTER V

THE FUNDAMENTAL DIFFERENCES IN CONDITION AFTER THE ARMISTICE

UP to the Armistice there was a definite objective to which all energies were directed, and that was to win the War. In the Railroad Administration, the Central and Regional staffs and the officials and employees on the various railroads had this paramount purpose to guide and unify their efforts. They had the acquiescence and support of the general public and of the corporate representatives of the railroad companies. No question arose as to how long Federal Control would last, because everybody assumed that it would last until the War was won. There was no time to speculate or disagree as to what would be done with the railroads when hostilities were ended.

But when the Armistice was signed, the main object for which the railroads had been taken over had been accomplished. There was then a disappearance of the war spirit which had controlled the energies and the attitude of those engaged in or affected by railroad operation. Almost every motive or aspect pertaining to the subject underwent a complete and sudden change. The student of the phenomena of Federal Control of railroads must therefore draw the sharpest distinction between the pre-armistice period and the post-armistice period, these periods corresponding for practical purposes substantially with the years 1918 and 1919, respectively.

Tenure of Federal Control.

One of the outstanding characteristics of the post-armistice period was the uncertainty of the Government's tenure of the railroads. So long as hostilities lasted, nobody bothered about the length of the tenure. The moment hostilities were over, the question became acute as to how long Federal Control should continue, if at all.

Immediately after the Armistice there developed emphatic demands on the part of the public for two inconsistent things, the first being the termination of Federal Control without delay and the other being the continuance of Federal Control until Congress had passed legislation for the improvement of government regulation of private railroad control.

The President's Proclamation taking over the railroads had put no limit upon the duration of the government tenure. The Federal Control Act of March 21, 1918, provided that Federal Control should continue during the War and for a reasonable time thereafter, not exceeding one year and nine months from the making of peace.

In President Wilson's message to Congress on December 2, 1918, he indicated that the Treaty of Peace could be hoped for "by the time spring has come." He expressed the view that the railroads ought not to be allowed to go back to the old conditions of unrestricted competition and multiform regulation by both State and Federal authorities and emphasized that Congress should adopt an affirmative and constructive railroad policy. But the President further indicated "that it will presently become my duty to relinquish control of the roads, even before the expiration of the statutory period, unless there should appear some clear prospect in the meantime of a legislative solution" pointing out that their release would at least produce certainty and a quick stimulation of private initiative. (See appendix to this chapter for extracts from the President's message.)

Shortly after delivering this message, the President sailed for Europe to participate in the Peace Conference in Paris.

On January 4, 1919, Director General McAdoo recommended to the Chairman of the Senate and House Committees on Interstate Commerce that Federal Control should be extended for a period of five years, so as to tide over the inevitable difficulties of post-war reconstruction for all forms of industry, and so that the Railroad Administration might proceed in a confident manner to make the necessary railroad improvements, and incidentally to stabilize industry by supplying an extensive railroad purchasing power instead of a purchasing power greatly impaired by uncertainty as to the status of the railroads. The writer, who succeeded Mr. McAdoo on January 11, 1919, took the position that one of two courses should be promptly adopted: (1) to give the Railroad Administration a reasonable extension of from three to five years so that it could formulate and carry out with authority and confidence policies necessary to satisfactory transportation service and to reasonable stabilization of conditions naturally in great disturbance and uncertainty when hostilities ended, or (2) to return the railroads promptly to private control and relieve the Railroad Administration

of a task well-nigh impossible in the absence of a definite tenure for a reasonable length of time. The members of the Senate and the House were wholly opposed to both these propositions, and insisted that the termination of Federal Control should be delayed, despite the demoralizing uncertainty of its post-armistice status, until Congress had framed and adopted the necessary amendments to the Interstate Commerce Act.

The matter remained in this situation of complete uncertainty until President Wilson returned to Washington for a few days in March, 1919, when he authorized the announcement that he would be willing for the Government to retain the railroads long enough to give Congress a reasonable opportunity to adopt the necessary legislation. Naturally there was no way to ascertain what would be regarded as a reasonable opportunity. The old Congress had come to an end on March 4, 1919, and it was not even known when the new Congress would be called in extra session, if at all.

But the President later called an extra session of Congress to meet in May, 1919. In order to give certainty to the question as to termination of Federal Control, the President, in accordance with the recommendation of the Director General, made the definite announcement in his message to Congress in May that the railroads would be returned to private control at the end of the calendar year, thus giving the Railroad Administration a definite tenure of seven months and ten days. This constituted the first element of certainty as to how long the post-armistice Federal Control would continue.

By November, 1919, it had become apparent that it would be impossible for Congress to complete its railroad legislation by the end of the calendar year. It was evident that grave embarrassment would follow the turning back of the railroads to private control under the existing insufficient laws, and leading members of the Senate expressed to the Director General grave concern on this point. The Director General therefore recommended to the President that Federal Control be continued for such necessary additional period as would enable Congress to complete the legislation. But the matter remained in complete uncertainty until December 23, 1919, when the President indicated that his proclamation for relinquishment of the railroads would not become effective until March 1, 1920.

All action taken by the Railroad Administration after the Armistice was taken either in entire ignorance as to whether Federal Con-

trol would last beyond a few weeks or months or in the certain knowledge that it would terminate within a very short and rapidly disappearing period.

The practical effect was that for the sake of giving Congress nearly fourteen months in which to formulate legislation (a delay, most or all of which was necessary and which resulted in a highly constructive enactment), the Railroad Administration was required to continue to operate the railroads for that length of time under conditions seriously militating against satisfactory operation.

Effect of Post-war Conditions on Administration.

In practically every respect the Administration of the post-war portion of the Federal Control period was characterized by conditions different from those obtaining prior to the Armistice.

The evident early termination of Federal Control made it impossible to retain in the service some of the ablest and most experienced railroad officers who had gladly contributed their services as a matter of patriotism during the period of hostilities. The railroad corporations with increasing frequency and insistence urged their former principal officers who were in the Railroad Administration to leave it and return to the corporations to prepare for taking back the railroads. It was impracticable to attract to official positions in the Railroad Administration experienced railroad men who were not already engaged in government service. Consequently the vacancies which occurred from time to time had to be filled by promoting those already in the Administration who had generally theretofore held positions of less authority. As the end of Federal Control drew nearer, the resignations became more frequent and the difficulty of filling vacancies became greater.

The railroad managements anticipated with satisfaction and impatience, and many of the railroad employees (and particularly the national railroad labor organizations), anticipated with misgiving that the expiration of Federal Control would mean a revision of the relationships between management and labor. Inevitably the thoughts of officials and employees of the railroads turned more and more to the readjustments which private control so rapidly approaching was sure to bring. While the interest of the local Federal officials in the day-to-day movement of the traffic kept up, it was

only human nature that as December 31, 1919, approached, the date Federal Control was intended to end, there was a general letting down in the interest in giving effect to the policies of unified Federal Control. The interest had naturally turned to the resumption of private control. This condition was intensified during the two additional months of January and February, 1920, over which Federal Control was extended virtually at the last moment to enable Congress to complete its legislation. It was, of course, wholly impossible to start upon or plan any important program of railroad improvements.

The public, which up to the Armistice had acquiesced in countless inconveniences at the hands of the various war administrations of the Government, demanded prompt relief from every form of government participation in the management of industry and transportation and naturally assumed an attitude of especial impatience toward the Railroad Administration, which was the ever-present and the biggest and most tangible reminder of the extraordinary war-time interruptions of normal business life and methods.

Despite all these handicaps, public sentiment insisted that the Railroad Administration continue responsible for railroad operations and for the railroad situation until Congress could find time to adopt additional railroad legislation.

It seems worth while to emphasize these conditions, especially since they carry the suggestion that if at any time in the future an emergency should necessitate temporary government control of the railroads, provision should be made at the very beginning of such temporary government control for the practically instantaneous return of the railroads to private control the moment the emergency ceases, so as to avoid an interim operation under such difficulties as unavoidably confronted the continuance of government administration after the Armistice.

The next chapter will discuss the handling of the business during 1919 and until the return of the railroads to private control on March 1, 1920. The following chapters will discuss various important aspects of Federal Control for its entire period. But as to every topic it must be remembered that the Armistice divided Federal Control into two clearly distinct parts entirely different as to business and operating conditions, and, what is equally if not more important, entirely different as to psychology.

W. G. McAdoo, who had been designated as Director General of Railroads in the President's Proclamation taking possession of the railroads, resigned this position January 11, 1919, and the writer, who during the period of Federal Control up to that time had been Assistant Director General of Railroads, was appointed by the President as Director General of Railroads and continued in that position until the return of the railroads to private control on March 1, 1920, and in fact retained the position until May 15, 1920, for the purpose of giving attention to questions connected with the liquidation of the Railroad Administration. Therefore, roughly speaking, Mr. McAdoo's administration as Director General corresponded with the year 1918, the year of the War, and the writer's administration corresponded with the year 1919, the post-war year, including also, however, the months of January and February, 1920, during which Federal Control was reluctantly continued to enable Congress to complete its legislation.

CHAPTER VI

THE MOVEMENT OF THE TRAFFIC SUBSEQUENT TO 1918

DURING the post-armistice period, the Railroad Administration continued to employ as far as the changed conditions admitted the methods which were characteristic of Federal Control during the war year 1918. Particularly, it continued the effective control of shipments through the use of the permit and embargo, and the unified direction of the utilization and maintenance of equipment, terminals and other facilities, the two outstanding policies which were so successfully employed during the war year.

But the post-armistice period was characterized by extraordinary economic disruptions which were bred by war. The volume of freight traffic in the first part of the year suffered the most severe and sudden slump and in the latter part of the year experienced the most extreme and rapid increase on record. In the late summer just when the traffic was rapidly climbing to a peak corresponding with the maximum performance of the war year, an unauthorized strike of the railroad shopmen seriously interrupted railroad operation. When in October the volume of freight traffic had actually reached its peak with the month of October, the first virtually nation-wide strike of the bituminous coal miners was started.

In the month of February there was the greatest surplus of idle cars that had ever been known, and the month of October showed the greatest freight performance, measured by net ton miles, that had ever been known in that month. It taxed even the resources of unified control to cope with this sudden and violent swing from the low point to the high point of demand in the face of the shopmen's strike and of the enlarged demand for coal in anticipation of the coal strike.

Along with the extraordinary fluctuations in freight traffic, there was an unprecedented movement of passenger traffic throughout the year, which had to be handled despite the shopmen's strike, the sudden increase in freight business, and the hampering influence of the coal strike.

These elements justify somewhat more detailed comment.

At the beginning of the year the relapse in industrial activity

following the Armistice had fully set in and for the first six months the slump in freight business was most pronounced. The demand for coal in the first six months was extremely low, due to the large stocks on hand at the signing of the Armistice and to the subsequent slowing down of industry. Building activity, including road building, had been almost suspended during the War and had not been substantially resumed, so there was a low demand for lumber, structural steel, cement, crushed rock and other building materials. Export business was also extremely low.

In the first part of the year the problem had been to find places to store the idle cars and in the latter part of the year the problem was to get the cars to move the business. The fall has always been the time of the heaviest freight traffic, due to the movement of crops. There were exceptionally large crops in 1919, so that under the most favorable circumstances the movement of freight traffic in the late summer and fall would have been extremely heavy. But in 1919 the peculiar phenomenon appeared that to a large extent the year's miscellaneous industrial traffic, which would normally have been spread over the year and have moved largely in the spring and early summer, did not seek movement until the latter part of the year and then the demand therefor was urgently asserted in addition to the natural fall demand, particularly heavy on account of the large crops. Indeed the industrial activities which had been arrested in the spring began, in the latter part of the summer, to demand transportation with redoubled urgency by reason of their earlier period of extraordinary inactivity.

This exceptional condition was strikingly illustrated by the demand for transportation of lumber from the mills in the Puget Sound territory on the Pacific Coast. General construction activities had been held in abeyance during the War and had remained in abeyance during the period of uncertainty and slump in business in the early part of 1919. Suddenly great activity developed in construction work and it was found naturally that stocks of lumber were very low. This led to an urgent demand for transportation of lumber and the demand greatly exceeded the ability of the railroads in that section to furnish transportation. And yet during the last four months of 1919 the principal railroads serving that territory transported about 20 per cent more carloads of lumber than they transported in the corresponding months of 1918, when the war

needs for lumber were very heavy and when lumber for war purposes was given preference in handling.

The marked expansion of the productive capacity of the country's industries during the War played an important part in the intensity of the demand for transportation. When business activities were suddenly resumed in the second half of 1919, there was a greatly increased producing capacity anxious to respond to the deferred demand, and insistent upon immediate transportation. There developed also an intense activity in retail business and this greatly increased the less-than-carload movement of merchandise thus heavily taxing the box-car supply just at the time the crops were moving. In connection with, and as a part of, this suddenly revived demand for transportation, there was an insistent demand on the part of shippers for the complete return of all peace-time transportation privileges which had been enjoyed prior to 1917.

The Railroad Administration in 1919 had to meet the conditions above outlined without the aid of many of the expedients which had been helpful in 1918. The "sailing day plan" which had restricted the movement of cars handling less-than-carload shipments to certain days in the week, thus producing heavier loading and releasing cars for other transportation, had to be substantially modified in response to the insistent demands of shippers who were not satisfied after the termination of hostilities to submit to such limitations on the opportunities to ship their goods. The disregard of routing designated by shippers, which had facilitated the use of the shortest and most economical routes, could not be continued to the same extent and it was necessary to approximate the peace-time rule that shippers had the right to route their traffic. The compulsory pooling of coal at Atlantic and Lake ports, which had resulted in 1918 in great economy of cars and other transportation facilities, had to be abandoned, upon the dissolution of the Fuel Administration, and the shippers were not willing voluntarily to establish such pools and thereby limit their individual and distinctive activities. Likewise upon the dissolution of the Fuel Administration the zoning of coal came to an end and there was a necessary falling back into peace-time condition where coal had to be hauled long distances into markets capable of being served by near-by coal, so that a considerable economy in the use of cars and locomotives during 1918 was no longer practicable in 1919. The heavy demurrage charges which had been

established to discourage shippers from holding cars too long either for loading or unloading had to be modified and the charges substantially diminished, by way of response to the insistent demands of the shipping public which resented being subjected to war-time penalties after the termination of hostilities. Many passenger trains which had been discontinued in 1918 had to be restored to respond measurably to the public demand, and this had a tendency to hamper the largest use of tracks for the transportation of freight. In short, there was the inevitable general relaxation from the extreme economy in the use of transportation facilities which the public was willing to accept up to the time of the Armistice but vigorously opposed thereafter.

In August the situation throughout the country was greatly complicated by unauthorized strikes on the part of about 200,000 shopmen and engine-house laborers, with the result that for over two weeks the maintenance of equipment and also the handling of engines and consequently the movement of trains were put seriously in arrears, and on some roads freight traffic was almost suspended. This still further accentuated the acuteness of the demand for transportation.

By October the momentum of business revival had gained still further headway and the demand for the immediate furnishing of an abnormal quantity of transportation had become even more insistent. By the middle of October the railroads had to begin giving preference to coal movement on account of the prospective coal strike, which was to begin November 1.

In September the Railroad Administration set a minimum of 11,000,000 tons of bituminous coal per week as the amount to be moved during the remainder of the year. This mark was consistently exceeded every week until the strike on November 1. The record for the entire history of the country up to that time was reached in the week of October 25, 1919, when 13,200,000 tons were transported. In the month of October, 1919, the movement approximated 56,243,000 tons as compared with 51,000,000 tons in the war month of October, 1918, and 45,000,000 tons in October, 1917. The next highest movement was in the war month of August, 1918, when 55,114,000 tons were moved.

Beginning with November the railroads had to interfere still further with the handling of the tremendous general business in order

to haul coal from the 40 per cent of the mining capacity which still remained in operation, to practically all the rest of the country. It was principally the non-union coal mines of West Virginia, Kentucky and Virginia which had to supply the coal to make up as far as possible the practically complete shutdown of coal mines in other parts of the country and notably in Illinois and Indiana. The railroads thus had to move coal for hauls of 500 to 1,000 and 1,500 miles to meet the emergency demands which normally were supplied in large part by hauls of 100 to 200 miles, or less. Cars had to be loaded with coal for this long distance movement and these cars in many instances could not return for months, indeed not until long after the termination of Federal Control. Other traffic had to be discontinued to whatever extent was necessary to handle the emergency coal movement. Railroad operation was seriously hampered because to a large extent the railroads had to use grades of coal to which the engines were not adapted and with which the firemen were not acquainted.

As a result, when the coal strike came to an end on December 10, 1919, the coal car equipment was unavoidably scattered over the country in an unprecedented way. The return of the equipment to the respective owning roads was made unusually difficult by the fact that exceptionally severe weather had begun early in November and continued practically throughout the winter. A great many coal cars had to be held almost indefinitely under load, as that had been the only practicable means of storing the coal during the strike, and in many instances this coal was frozen in the cars.

In October, 1919, the railroads performed a greater volume of transportation service as measured in ton miles per mile of road per day than had ever before been performed in the month of October even in 1918 when all previous records for that month had been broken. In October, 1918, the situation was aided by the war spirit, by the resulting heavier loading of equipment, by the zoning of coal distribution, and by compulsory pools of coal tonnage at tidewater and the lower lake ports, all of which factors had then greatly increased efficiency, and all of which factors were lacking in October, 1919.

The freight movement, measured in ton miles per mile of road per day for the months of September and October in 1916, 1917, 1918 and 1919, was as follows:

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	<i>1916</i>	<i>1917</i>	<i>1918</i>	<i>1919</i>
September	5,166	5,217	5,731	5,625
October	5,148	5,385	5,584	5,651

The freight service performed in October, 1919, was materially in excess of that performed in October, 1917. The average daily car shortage during the month of October, 1919, was 59,510 cars as compared with an average daily car shortage of 141,466 cars during the month of October, 1917.

The average train load during the four calendar years ending with 1919 was as follows:

	<i>1916</i>	<i>1917</i>	<i>1918</i>	<i>1919</i>
Train load in net tons	618	657	688	692

Considering the rapidity and intensity of the readjustments both commercial and psychological following the Armistice, the responsiveness and elasticity shown by the Railroad Administration were noteworthy and were due to the potentialities inhering in the principle of unified control.

But the changes in condition were so sudden and so extensive that, as pointed out above and despite all the powers at the command of the Railroad Administration, car shortages developed in various parts of the country in the late summer and fall, although far less in amount and location than had frequently been customary prior to the War.

Throughout the year with possibly some temporary modification during the few days of the strikes just referred to, the Railroad Administration had a satisfactory locomotive situation. Owing to the increased capacity of the locomotive repair shops, there were on January 1, 1919, 1,384 locomotives in good condition in storage. This rose to a much higher figure during the slump in business in the early part of the year. But even at the time of the heaviest business the Administration had a comfortable surplus of locomotives and at the end of the year there were 2,395 locomotives stored in good condition, a situation that had not theretofore existed during periods of heavy traffic.

The situation as to maintenance of freight cars was much more complicated, because they were so widely scattered that they were largely maintained away from the "home" roads. The unauthorized

strikes of shopcrafts told much more seriously on the maintenance of freight cars than on the maintenance of locomotives. One important reason why freight cars suffered more than locomotives from the strike was that the locomotives were on "home" rails almost invariably, and there was the maximum of local interest on the part of the management in keeping the locomotives in repair, whereas a great proportion of the freight cars were cars belonging to other railroads which therefore received as a rule only running repairs. The necessity for keeping each locomotive unit in repair naturally seemed more pressing than the necessity for keeping any particular car unit in repair. As a result of the strikes, the percentage of bad order cars had increased by August 16 to 9.2 per cent. From that time on, however, the situation was steadily improved.

In carrying on the freight transportation business in this difficult period, the Railroad Administration continued to use the expedients employed in 1918. During the time of the sudden peak load in the late summer and early fall the permit system was freely used. A. T. Hardin who succeeded A. H. Smith as Regional Director of the Eastern Region on June 1, 1919, reported that the export tonnage delivered to ships at New York in 1919 substantially exceeded that of previous years, but that the permit system kept the situation "liquid" so that the piers were not congested.¹

The unified control of refrigerator cars was carried out with such success that although there had been no increase in refrigerator car equipment for several years, there was an increase of over 50,000 carloads, or more than 20 per cent, of refrigerator car traffic handled in 1919 as compared with 1918.

¹ Regional Director Hardin at page 19 of his report for 1919 gives the following statement of export tonnage delivered to ships at New York:

1913	3,341,124
1914	3,235,547
1915	4,793,750
1916	6,519,422
1917	6,239,486
1918	7,340,694
1919	7,866,582

Mr. Hardin reported that the use of the permit system kept the tonnage "liquid," that the piers were not congested, and that at the time of the longshoremen's strike in October, 1919, there was plenty of available room on the piers to unload freight from cars on hand and arriving.

The foregoing account of the sudden and exceptional vicissitudes in 1919 strikingly illustrates the proposition now so clearly appreciated that war's disruptions, far from being confined to the period of hostilities, merely begin to show themselves in new forms when hostilities terminate and the painful processes of readjustment begin. Nor did these readjustments growing out of the War end with the end of Federal Control on March 1, 1920. The labor unrest developed serious unauthorized strikes in 1920 with the result that railroad traffic became involved in congestions and shortages approximating those of 1917.

Passenger Service.

The passenger service performed in 1919 exceeded all former records. The number of passengers carried one mile on Class I railroads for the four calendar years ending with 1919 was as follows:

Calendar year

1916	34,585,952,026
1917	39,476,853,549
1918	42,676,579,199
1919	46,358,303,740

The average number of passenger miles per mile of road per day carried by Class I railroads in the same four years was as follows:

<i>1916</i>	<i>1917</i>	<i>1918</i>	<i>1919</i>
409	466	507	548

During the first eight months of the year an important part of the passenger transportation was the movement of troops in process of demobilization. The troop movement had largely disappeared in the last four months of the year, and by January 1, 1920, practically all of the four million men called to the colors to serve in the World War had been released from service and returned to their homes,² but the passenger travel continued in unprecedented vol-

² The movement of troops was in charge of Mr. George Hodges from the organization of the Railroads' War Board in 1917 until Mr. Hodges' death on March 14, 1919. He had been Manager of the Troop Movement Section of the Division of Operation since the beginning of Federal Control. The Distinguished Service Medal was posthumously awarded to him "for especially meritorious and conspicuous service" as Manager of the Troop Move-

ume. There had been virtually no additions to the passenger or sleeping car equipment in the two preceding years, so that the trains were frequently more crowded and less comfortable than if the volume of traffic had had a more normal relation to the amount of equipment.

Earnest efforts were made to reduce the proportion of delayed trains and, despite the fact that heavier trains had to be hauled in order to accommodate the travel, the records indicate that on the average the percentage of trains on time and making up time was as good as in pre-war periods when travel was more normal, and as to numerous important lines was considerably better.

During the War numerous passenger trains were removed, largely because of the necessity for making passenger train equipment available for the movement of troops, but beginning with the signing of the Armistice and continuing throughout the year 1919 much of the passenger service so curtailed was reestablished. Some passenger trains were reinstated even though it was reasonably certain that they would be operated at a loss, for the reason that it was clear the existing service did not reach the minimum to which the public was reasonably entitled. In the western part of the country passenger train mileage added was in excess of the passenger train mileage canceled during the War. In addition, some of the limited trains were restored to their former schedules, a number of observation car services which were canceled during the War were put back into service and some additional sleeping car lines were inaugurated. A constant and successful effort was also made throughout the year to improve connections between passenger trains at interior junctions.

The ability to handle the heavy traffic, both freight and passenger, again emphasizes the power inherent in unification, especially when consideration is given to the shopmen's strike, the heavy strain on the railroad plant for carrying the suddenly developed peak of the freight traffic, and the disturbing operating difficulties due to the coal strike.

ment Section of the Division of Operation of the United States Railroad Administration. Mr. Hodges arranged all the details of the movement of troops from local draft boards to mobilization camps, between camps, or from mobilization camps to the ports of embarkation for shipment overseas. Troops in large numbers were moved on short notice and he was responsible for the successful coördination and carrying out of these movements.

CHAPTER VII

FURTHER FEATURES CONNECTED WITH OPERATION BEFORE AND AFTER THE ARMISTICE

Statistics Bearing on Handling of Traffic during, before and after Federal Control.

THERE are included in the appendix to this chapter certain charts and a table which bring out striking features of the handling of traffic during the years of 1918 and 1919, and years immediately preceding and following.

One of these charts shows the freight car surplusages by months from February, 1915, to December, 1921, both inclusive. The unequaled peaks of idle freight cars in 1919 and 1921, and the one not so high in 1915, are monuments to the dislocating character of the War. The car surplusages in 1915, though the country was not then in the War, show how the depression in this country in the first year of the War in Europe affected railroad transportation here. The surplusages in 1919 and 1921, although after the Armistice, testify to the continued disruptions of business which flowed from the War.

One of the charts shows the freight car shortages by months from February, 1915, to December, 1921, both inclusive, and illustrates the great improvement that unified control accomplished despite the disturbing features during the war and post-war periods.

The third chart, showing the net ton miles per mile of road per day, brings out the great volume of traffic carried in 1918 up to the time of the Armistice when the demand for transportation dropped so suddenly. This condition may be contrasted with the condition in 1917, when, although the demand for transportation continued to increase throughout the year, the amount of transportation performed fell off substantially after the month of June and dropped with great rapidity after the month of November. The chart also shows that in the brief period in 1919 when there was a heavy demand for transportation, the performance attained to the highest level that had been reached in the autumn months of prior years.

This chart also shows the even higher levels of performance which were reached in August, September and October in 1920.

The table of freight and passenger statistics shows, among other things, a marked increase in the freight train load in 1918 and an even greater increase in the freight train load in 1919 as compared with 1916 and 1917. It also shows the substantial increase in the car load, due largely to the coöperation of the shippers. It shows the large increase in passenger traffic in 1918 and the far greater increase in passenger traffic in 1919, which increases were handled practically without increases in passenger train car miles and with considerable decreases in passenger train miles as compared with the pre-war years.

Comments of Regional Directors upon Operations during Federal Control.

It will be helpful to the student of these matters to make available, as is done in the appendix to this chapter, the observations of the Regional Directors in their Annual Reports for 1918 and 1919 bearing upon the character and achievements of operation during the period of Federal Control. On account of the remarkable state of mind which characterized a considerable and outspoken portion of the public with respect to Federal Control, it is useful to have these expressions of eminent and responsible railroad men as to what was taking place at the time under their direct observation. The comments of these Regional Directors bring out, what is also apparent from the statistics, that during Federal Control there was an effective and vigilant handling of the public transportation service.

Standardization and Allocation of Equipment Purchased by the Railroad Administration.

At the beginning of Federal Control it was apparent that the railroads were in serious need of additional locomotives and freight cars. The decision was promptly reached that 100,000 freight cars and upwards of 1,000 locomotives should be purchased by the Railroad Administration and delivery secured as soon as practicable. It was recognized that this was an extremely difficult task because of the war demands for materials of all the sorts required in the construction of such equipment, and because, as well, of the scarcity of labor in the locomotive and car-building shops of the country.

Under private control each railroad company had developed its own types of locomotives and of freight cars. As a result there was a great variety of types. It was believed that if the Railroad Administration undertook to provide for each railroad its own special types of locomotives and freight cars, the expense of construction and the delay in construction would be greatly increased. Therefore it was clear that the wise policy was to resort to standardization of this equipment along sound lines which would meet the varying needs of the different railroads and yet which would minimize the number of types which would have to be constructed.

Great care was taken to obtain the advice and assistance of the best and most experienced talent in the country and the leading locomotive and car builders and the heads of the mechanical departments of many of the railroads were drawn into service.

As a result of careful deliberation, the proposed construction was confined to practically seven classes of locomotives, each class subdivided into light and heavy types, and to five classes of freight cars, although the scarcity of steel plates, which were required for ship-building purposes, introduced another type of gondola car by the partial substitution of wood for steel. The description of these classes and types is shown in the appendix to this chapter.

The speed with which the standardized equipment could be constructed, as compared with constructing a great variety of types of non-standard character, confirmed the view that standardization ought to be resorted to. Observations at some of the locomotive shops indicated that the speed of production was increased about 50 per cent by the standardization as compared with constructing the numerous types theretofore called for.

Carl R. Gray, Director of the Division of Operation in 1918, had the supervision of the standardization of both locomotives and freight cars. Henry Walters, Chairman of the Atlantic Coast Line, who was greatly relied on as an adviser of the Railroad Administration, also gave much attention to the locomotive standardization.

The Railroad Administration's undertaking to obtain this equipment and put it into use involved a number of extremely difficult problems in addition to that of standardization. The problems of making contracts for the equipment on the most reasonable terms, and of getting the material and supervising the construction, are discussed in Chapter VIII on The Purchase and Custody of Railroad

Materials and Supplies. The problem of the method of financing whereby the Railroad Administration might eventually be reimbursed by the railroad corporations for the capital expenditures made in order to provide this equipment is discussed in Chapter XII on Capital Expenditures, Finance and Accounting.

But there was an intervening problem of great difficulty which may well be discussed at this point, and that was the problem of allocating the equipment thus purchased among the various railroad companies. This problem presented serious difficulties. The allocation was made by the Division of Operation in the light of what seemed to be the comparative needs for new equipment on the different railroads, the volume and nature of their traffic being considered. Many of the railroad companies, however, vigorously objected to the allocations thus made. The grounds of objection were numerous. Some claimed that the equipment was needed only for the war emergency and therefore should be paid for and owned by the Government, it to dispose of the equipment at the end of the War upon such terms as the Government might then be able to agree upon with the railroad companies willing to take the equipment. Others claimed that the types of equipment were entirely unsuited to their needs. Others claimed that the quantity of equipment allocated to them was in excess of their needs. The objections of each railroad company were carefully considered. The Railroad Administration rejected the objections that the equipment was merely for war purposes and hence should be paid for and owned by the Government and the objections that the types were unsuited to the railroads. The objections that the quantity allocated was excessive led in some cases to reductions in the quantity allocated to some few railroad companies. But with a few exceptions the Railroad Administration finally sustained the allocations as originally made.

Near the end of Federal Control it became apparent that prices of railroad equipment were going to be higher after the end of Federal Control than the prices at which the Railroad Administration had been able to buy this equipment. Thereupon there was a marked change in the attitude of railroad companies which had been objecting to taking the equipment allocated to them. In fact, in some instances, railroad companies, which had only recently urged with great emphasis and elaboration that they needed no equipment, gladly took what had been allocated to them and in occasional in-

stances expressed the desire to be allotted any surplus equipment which the Railroad Administration might have on hand.

Finally, all the equipment was taken in accordance with the final allocation made by the Railroad Administration, except in a few instances where transfers were made from one railroad company to another with their consent.

The problems connected with the allocation of the equipment were handled by the Division of Operation in 1918 and by the Division of Capital Expenditures in 1919.

Unifications of Operations.

At the beginning of Federal Control and up to the Armistice, much attention was paid to unifications of portions of different railroads, which railroads, prior to Federal Control, had been operated independently and in competition. These efforts were for the double purpose of increasing transportation capacity and expedition and of realizing economies. These unification projects took many forms. Some of these are treated more in detail in other chapters, but will be included in this more general discussion.

The extensive elimination of unnecessary passenger trains was in itself a feature of unification, the result being to concentrate or unify certain passenger train service so as to avoid duplication or even greater multiplication of passenger trains operating over different railroads. Similar in character was the elimination of circuitous routes for freight traffic, a matter to which much attention was paid, with substantial results, by the Division of Traffic. The result was that the competing railroad with the longer route had to yield this freight traffic to the shorter route.

A striking instance of unification was the establishment of consolidated ticket offices. Prior to Federal Control it had been the practice of each railroad company to maintain in each of the important cities upon its line a "city" passenger office where tickets might be bought and sleeping and parlor car reservations might be made. These offices were, of course, in addition to the ticket offices maintained in the railroad passenger stations. As a rule in any city served by several different railroads, there was a separate city passenger office for each of these railroads. During Federal Control 101 consolidated offices were established in lieu of 564 of these city passenger offices in existence prior to Federal Control. These consolidated offices gave

more adequate and convenient service than the much greater number of offices which were replaced in this manner. The consolidated offices resulted in a much better distribution of the traffic. If a passenger found at the consolidated office that sleeping or parlor car space was not available via one route, he was able to select another route without the inconvenience of going to some other office.

Unification of terminals was another very important step. Prior to Federal Control the railroads serving a particular city had in many instances joined in the formation of a terminal company, which to a considerable extent unified at least an important part of the terminal operations in and about that city. But to a very large extent the terminal operations were separately conducted by the respective railroads serving the city, even in cases where one or more terminal companies performed a considerable part of the service.

A striking illustration of terminal activity was afforded in the Chicago terminal district. That district embraced approximately 2,500 square miles. It was served by thirty-two railroads. Six of the seven Regional Directors had jurisdiction over one or more of these railroads. The terminal operations in this great district were unified into a single terminal arrangement under the immediate supervision of one of the Regional Directors. This resulted in more economical and efficient operation, with lessening of terminal congestion and delay, increase of car supply, avoidance of empty car mileage and facilitation of interchange of cars.

The instance just cited, though on an unusually large scale, is suggestive of the policy which the Railroad Administration pursued wherever practicable.

A particularly interesting instance of the unification of passenger terminal facilities was that of the Railroad Administration putting the Baltimore & Ohio passenger trains into the Pennsylvania Railroad passenger terminal in New York City. Prior to Federal Control the Baltimore & Ohio passenger trains used a terminal in New Jersey directly across the Hudson River from New York City. The Pennsylvania Railroad Company had built a very handsome passenger terminal in New York City reached by a tunnel from New Jersey under the Hudson River. Early in 1918 the Director General of Railroads caused the necessary connections to be made between the tracks used by the Baltimore & Ohio and the Pennsylvania

Railroad tracks at a point in New Jersey a few miles from the entrance to the tunnel and thereafter the Baltimore & Ohio passenger trains regularly used the Pennsylvania Railroad passenger terminal in New York City. This move greatly promoted the convenience of the public. This arrangement continued until some time after the end of Federal Control, when the Pennsylvania Railroad Company declined to continue the arrangement longer, claiming that its rapidly increasing passenger travel called for all the space available in the terminal.

There was also at times a considerable utilization of the repair shops of one railroad for the purpose of repairing locomotives and cars used upon some other railroad in the vicinity. At times such use was very important and highly beneficial, but on account of the brief tenure of Federal Control it was out of the question to effect any unification of this character which would involve any radical changes in the shop facilities of the different railroads.

The extent of unification was necessarily strictly limited by the purely provisional character of Federal Control. Much more extensive unification would have been practicable if the times had been propitious for the making of the necessary capital expenditures in order to admit of more complete unified use. What was actually done in this direction was therefore purely suggestive and not at all a measure of what might be accomplished in the direction of unification under some permanent policy.

Economies.

The unifications above referred to resulted in substantial economies. For the year 1918 the following rough estimate of specific economies is illustrative and suggestive:

Elimination of passenger train service	\$ 60,000,000
Unification of terminals and consolidation of stations and ticket offices	35,000,000
Saving in advertising	5,000,000
Miscellaneous	10,000,000
Total	\$110,000,000

Various other economies were realized, but were not susceptible of computation without elaborate additional accounting which was not

undertaken. For example, the elimination of circuitous routing for freight traffic undoubtedly involved substantial economies. The Division of Traffic in its report for 1919 mentioned, as an illustrative instance, that in the Central Western Region 77,699 cars were re-routed with a saving of 12,065,849 car miles, or an average of 155 miles per car. Again, in connection with the accounting departments of the various railroads, a great deal of accounting was eliminated which was requisite so long as each railroad company had to account with every other railroad company in respect of all intercompany transactions. This is referred to in Chapter XII on Capital Expenditures, Finance and Accounting. While substantial savings might have been effected on this account in the case of a permanent unification, the temporary period of Federal Control incurred offsetting accounting burdens because of the necessity of accounting with the railroad companies in respect of the intricate obligations existing between the Government and the railroad companies by virtue of the terms of the contracts whereunder the Government held and operated the railroads.

It is true in the matter of economies, as well as in the matter of unifications, that what was susceptible of accomplishment during Federal Control was restricted by the limited period of that control.

After the Armistice, and when the public became very insistent upon being given the full benefit of the same quantity and variety of service which had been available prior to Federal Control, various features of unification had to be abandoned, along with such economies as resulted therefrom.

One important economy which is referred to below in this chapter was that accomplished in the conservation of fuel. But this could not be attributed solely to unification. It was the carrying out to a further degree, and the extension to railroads generally, of a form of economy which was already in process on many railroads before Federal Control commenced.

Various Operating and Traffic Activities.

Exports Control Committee. In order to coördinate the activities of the Railroad Administration, Army and Navy Departments and all shipping for the United States and Allied Governments, with respect to handling of export traffic, the Exports Control Committee, briefly referred to in Chapter IV, was created by the Agreement of

June 11, 1918, between the Secretary of War, Secretary of the Navy and the Director General of Railroads.

The membership of this committee was as follows:

George D. Ogden, representing the Railroad Administration,
Chairman,

Major General George W. Goethals, representing the War Department,

Rear-Admiral C. J. Peoples, representing the Navy Department,

P. A. S. Franklin, representing the Shipping Control Committee,

D. W. Cooke, representing the Allies.

The control of all shipping both for the United States and for the Allied Governments reaching American ports had previously been given to the Shipping Control Committee of which P. A. S. Franklin was Chairman.

The duties and responsibilities of the Exports Control Committee were by order defined as follows:

1. To inform itself

(a) As to the probable amount of freight which must be exported for the prosecution of the War.

(b) How this war freight could best be routed through the various ports.

(c) How much of other essential export traffic had to be handled.

(d) The amount of local traffic necessary for each port.

2. The Committee had authority to select the port to which specified freight would be transported for shipment overseas for the use of the War and Navy Departments, the Allied Governments and others.

3. The Committee had the responsibility of deciding upon the distribution of the combined amount of all exports as between the various ports so as to facilitate its handling at and avoid congestion in any one port.

This committee was very successful in securing the proper co-ordination between the rail and ocean lines. Shipments from the interior for overseas were allowed to come forward only on permits and these permits were issued only where there was a practical certainty, barring the exigencies of war, that shipping would be available to handle these shipments on arrival at the ports.

Car Service Section. While references have been made to the handling of the freight car supply, some further comment on the Car Service Section of the Division of Operation is appropriate. It was charged with the task of coördinating the freight car supply on the railroads in the various regions so as to meet the demands of the government departments and the general public, and of arranging for preferred movement of priority shipments.

This section was the successor of the Car Service Commission of the American Railway Association which had been organized in February, 1917, and had met continuously at Washington during the régime of the Railroads' War Board. While this commission had performed excellent service during 1917, its power, like that of the Railroads' War Board, had been limited and it had not been able to make much headway in control of priorities and in clearing up the congestion which became so serious at the end of 1917. As a part of the Railroad Administration and in the exercise of its powers, the Car Service Section became an effective agency in controlling and coördinating the freight car movement of the entire country.

W. C. Kendall, a member of the Car Service Commission of the American Railway Association, and prior thereto Superintendent of Transportation of the Boston & Maine, was appointed Manager. With the manager were associated seven assistant managers whose experience as transportation officers had covered practically all of the regions, so that the Car Service Section was fully conversant with the local operating problems of all parts of the country. Branches were established at Chicago to direct the distribution of refrigerator cars and tank cars, at Pittsburgh to direct the Eastern Railroad Coal Car Pool and at Seattle to supervise car service in the lumber districts of the northwest. A force of inspectors was also maintained, who traveled throughout the country and kept the section posted as to local conditions.

Some of the specific problems which the Car Service Section was called upon to handle in conjunction with the Division of Traffic were the permit system and the sailing day plan described in Chapter IV. It handled the supply of cars for the mines and the zoning of coal distribution and special movements, such as the movement of empty box cars west for return movement of grain and foodstuffs for the Allies. In coöperation with the shippers, it conducted an active campaign to conserve equipment by increasing the carload.

It instituted a campaign for advance movement of raw materials and supplies during the summer months to relieve the congestion in the fall and established a car record office to give information to various government departments with respect to the location and movement of government freight.

Safety Section. This section of the Division of Operation carried on an extensive campaign for the education of railroad employees in locating and eliminating unsafe practices, and created "Safety" organizations for this purpose on lines where such organizations had not previously existed. This work had been inaugurated on many of the railroads prior to the War. The movement was broadened and stimulated during Federal Control.

The work of the Safety Section was first a part of the Mechanical Department, but on February 19, 1918, a separate section was organized under Hiram W. Belknap, previously Chief of the Bureau of Safety of the Interstate Commerce Commission. On Mr. Belknap's death, October 12, 1918, A. F. Duffey, Assistant Manager, was appointed Manager.

Telegraph Section. The Telegraph Section of the Division of Operation had the task of coördinating the telegraph and telephone facilities of the railroads in order to provide for the voluminous and rapid exchange of messages between the Central and Regional Organizations and the individual railroads. This section was created on July 1, 1918, with Martin H. Clapp as Manager.

Fuel Conservation Section. The railroads are among the largest users of coal in the country. The Fuel Conservation Section of the Division of Operation was organized to direct and coördinate the fuel saving campaign under way on many of the railroads and to coöperate with the Fuel Administration, one of the Government's war agencies, in its fuel conservation program. This section held meetings with coal operators, railroad officials and employees and sought to improve the quality of the coal furnished the railroads as well as the methods of using the coal on locomotives and in stationary plants. The continued improvement in fuel consumption subsequent to Federal Control may be attributed in part to the stimulus given the fuel conservation movement during Federal Control. This section was created on May 1, 1918, with Eugene McAuliffe as Man-

ager. He had previously successfully organized fuel conservation campaigns on the St. Louis & San Francisco Railroad.

Operating Statistics Section. It was necessary to secure prompt and uniform monthly statistics of operations on the individual railroads for the guidance of the Central and Regional staffs. The monthly reports previously made to the Interstate Commerce Commission covered revenues and expenses only and gave no units of physical performance, nor were they in sufficient detail to permit an analysis of results for the month. Furthermore the rapid increase in rates of pay and prices of material made comparison of expenditures with those of previous months and years of little value in analyzing efficiency of operations.

The Railroads' War Board had made a beginning by calling on the individual railroads to make reports of certain selected statistics of freight train and car movement, which were consolidated and summarized by the Bureau of Railway Economics. These statements, however, had been slow and irregular because of the delay by the railroads in filing their returns.

The Operating Statistics Section of the Division of Operation developed a series of standard reports to be used by all roads in reporting monthly operating statistics and there were published statistical summaries of operations by roads and regions. These standard reports covered the more important features of freight and passenger train operations including the revenues and expenses by primary accounts. The reports were filed by all Class I roads from 15 to 30 days after the end of the month which they covered. A reasonably complete analysis of the monthly operations of any carrier under Federal Control could therefore be made almost as promptly in Washington as in the office of the carrier's own Federal Manager. These monthly reports with some modifications were continued by the Interstate Commerce Commission subsequent to Federal Control.

William J. Cunningham, Professor of Transportation at the Harvard Graduate School of Business Administration, was appointed Manager of the Operating Statistics Section on May 6, 1918. On his promotion to the position of Assistant Director of Operations on June 1, 1919, V. P. Turnburke, Assistant Manager of the Section and formerly Statistician of the Great Northern, was appointed Manager.

CHAPTER VIII

THE PURCHASE AND CUSTODY OF RAILROAD MATERIALS AND SUPPLIES

THE purchase and custody of railroad materials and supplies constituted a branch of railroad management of extreme importance and of peculiar difficulty during the period of Federal Control. It was all the more difficult because of lack of any well-defined and approximately uniform method of organization in the railroad world of matters connected with the purchase and custody of materials and supplies. There were much greater variations of method than were found in other branches of railroad management such as maintenance, transportation and traffic. The custody of materials and supplies, especially involving the manner of their storage and the responsibility and accounting for their disposition, was handled in a great many different ways on the different railroads.

Purchase of materials and supplies was at first put into the same division with Finance, both being in the Division of Finance and Purchasing, of which John Skelton Williams, Comptroller of the Currency, was made the Director. The matter of purchases was handled under the supervision of the Director, by a Central Advisory Purchasing Committee consisting of Henry B. Spencer, Vice-President, Southern Railway Company, Chairman; Samuel Porcher, General Purchasing Agent, Pennsylvania Railroad Company; and George G. Yeomans, Purchasing Agent, New York, New Haven & Hartford Railroad Company.

In March, 1919, the Division of Finance and Purchasing was separated into two divisions, that of Finance and that of Purchases, and Henry B. Spencer was made Director of the Division of Purchases, the other two members of the Committee last mentioned serving as his assistants. Mr. Spencer had long been connected with the Southern Railway Company and at the beginning of the War was in charge of Purchases and Construction, and assisted in financial matters. During the existence of the Railroads' War Board, Mr. Spencer was Chairman of that organization's Subcommittee on Materials and Supplies. Since the termination of Federal Control Mr. Spencer has been President of the Fruit Growers Express Com-

pany, a corporation operating the refrigerator cars of a number of eastern and southern railroads, and more recently he has also been president of two other refrigerator car companies operating the refrigerator cars of two western railroad companies.

When the separate Division of Purchases was created in 1919, an Advisory Committee on Purchases was formed and continued in existence until the end of Federal Control. This committee consisted of John Skelton Williams as Chairman, Robert S. Lovett, who both prior and subsequent to 1918 was the Chief Executive of the Union Pacific System, and Henry Walters, the Chief Executive of the Atlantic Coast Line Railroad Company.

The Purchasing Division was assisted in the direct administration of its work in the respective regions by regional purchasing committees each consisting of three (in 1919 reduced to two except in the Eastern Region) experienced purchasing officers. These regional purchasing committees formed the points of contact between the Division itself and the purchasing agents of the individual railroads, to whom was entrusted the actual buying of the ordinary materials and supplies for railroad use, except so far as such purchase, on account of war conditions, was centralized in Washington or otherwise specially handled. All contracts for periods exceeding six months were submitted by the regional purchasing committees to the Purchasing Division for its action. Through frequent meetings of the regional purchasing committees with the divisional officers in Washington and with the purchasing agents of the individual railroads, exchange of information and uniformity of practice were constantly promoted.

The organization of the Sections in the Purchasing Division is shown in the appendix to Chapter III.

The Division was confronted with the difficulties naturally incident to the War's revolutionizing influences upon supply, demand and price in the purchase of practically everything the railroads used. It was necessary for the Railroad Administration, in the face of the other insistent war demands by such agencies as the War and Navy Departments and Shipping Board, to get its fair share of the limited supplies of material, and then it was necessary for the Railroad Administration to get the benefit of the best price that was obtainable, the price very generally being regulated by government agencies. After the Armistice the situation completely changed. Gen-

erally speaking, material ceased to be scarce. Government regulation of prices ended. But the chaotic economic conditions continued and until the end of Federal Control of railroads, and later, the problems of railroad purchases were extremely difficult and grave.

An idea of the scope of purchases of materials and supplies for railroad purposes is given by the following analysis of purchases supervised by the Division of Purchases during the year 1919:

Locomotives and cars ordered by the Railroad Administration*	\$ 380,036,000
Rail	64,915,000
Ties	127,833,000
Fuel	491,131,000
Miscellaneous material	696,615,000
Total	\$1,760,530,000

The general policy of the Division was, so far as consistent with the conditions brought about by the War, to permit the purchasing agents of the various railroads to make their purchases through the channels which they had theretofore developed and which were natural sources of supply for them. It sought thus to take all possible advantage of local sources of supply and commercial relations which were often of long standing. This attitude, however, was necessarily subject to the special methods of treatment which were dictated by war conditions and naturally the major purchasing transactions were handled by the Purchasing Division. An idea of its methods in these major matters can best be given by showing how it handled some of its principal purchasing tasks.

Cross Ties and Lumber.

For over a year prior to Federal Control, the railroads had had difficulty in obtaining a sufficient supply of cross ties and lumber on account of demands of the Shipping Board, the Army and Navy Departments, and of the Allied Powers.

At the beginning of 1918 the situation was acute. The different railroad companies were bidding vigorously for cross ties against

* The item of rolling stock consisted of the equipment ordered by the Railroad Administration in 1918 but not delivered until 1919.

each other as well as against all the other purchasers. Prices were advancing by leaps and bounds.

To get control of the situation, the Division forbade, for the early part of Federal Control, purchases of cross ties by railroads at prices higher than those prevailing December 31, 1917. The Section of Forest Products was organized and took measures to provide at reasonable prices the ties and lumber needed by the railroads. Railroads were prohibited from purchasing cross ties on each other's lines, subject to some exceptions under prescribed regulations, and each railroad was instructed to buy all of the ties that could be produced on its line regardless of its individual requirements, the distribution of any surplus being left to the appropriate regional purchasing committee. The section arranged to furnish the Army and the Shipping Board with cross ties and supplied 400,000 during 1918.

Production of cross ties was stimulated (1) by establishing prices duly related to prices of lumber and (2) by intensive campaigns of solicitation. The results were gratifying. Some railroads which for years had had to depend for their cross ties on sources of supply beyond their lines found they could get the ties they needed along their own railroads. On some railroads the local production was doubled.

In establishing prices, it was found that there was a complete absence of uniformity in specifications for cross ties. The best engineering and technical talent available was consulted and the United States Railroad Administration standard specifications for cross ties were evolved, giving expression to what had been learned in recent years in studies of timber physics. This action blazed a new trail and constituted a highly important advance. The new standard was endorsed after the expiration of Federal Control by the American Railway Engineering Association and was also endorsed in 1921, with a few minor changes, by the National Association of Railroad Tie Producers, which itself had come into existence as a result of the unified methods of Federal Control, and which constituted a beneficial stabilizing influence.

The production of cross ties was low during the time absorbed in getting control of the situation, but when the Forest Products Section's work was organized the production of cross ties was speeded up. Over 77,000,000 cross ties were produced in 1918, despite nu-

merous obstacles in the way. This was only 16 per cent less than the average for the ten preceding years. In the year 1919, the same organization and methods resulted in the production of nearly 96,000,000 cross ties, despite shortage of labor and other adverse conditions.

The average price for cross ties in 1918 was 66.7 cents per tie and for 1919 80 cents per tie or an increase of about 20 per cent. The standard specifications all worked a distinct improvement in the average quality of the cross ties, although some of the expedients which had to be temporarily resorted to, such as having one railroad organization shift part of its ties to another, resulted in some railroads getting cross ties below their special standards.

To promote wherever practicable the use of ties treated by preservation processes, the Section of Forest Products not only took control of all the tie-preserving plants owned by the railroads, but contracted for the entire output of all other preserving plants, except a few on other war work and, despite the shortage, was instrumental in securing the supply of preservatives it needed. The Section's successful handling of this matter elicited formal approval of the American Wood Preservers' Association.

The Forest Products Section also secured at reasonably satisfactory prices the supplies of lumber needed by the railroads, not only for maintenance but for the construction of 100,000 new freight cars.

The Section also issued instructions for the proper storage, care and handling of lumber and entered upon the standardizing of specifications for lumber so as to eliminate unnecessary sizes and grades. This work could not be completed by the end of Federal Control, but promised satisfactory results and some of the railroads adopted with success the suggestions thus made.

As the end of Federal Control approached, the Division of Purchases, in order to encourage production, invited the railroad corporations to continue in effect the standard specifications, and to accept at the established prices all cross ties that might be delivered after Federal Control ceased, until July 1, 1920. The railroad corporations, however, were not generally cordial to these suggestions and they could be carried out only to a very limited extent. It followed that production of cross ties decreased during the last months of Federal Control. Material increases in the prices of cross ties followed the resumption of private control.

Fuel for Railroad Use.

The fuel supply constitutes one of the most important branches of railroad purchasing and was handled by the Fuel Section. The railroads while in Federal Control consumed a yearly average of about 150,000,000 tons of bituminous coal (nearly one-third of the country's total production), 4,500,000 tons of anthracite, and 45,000,000 barrels of fuel oil.

During 1918 the conditions and prices were largely determined for all coal consumers, including railroads, by the President acting through the Fuel Administration. The Fuel Administrator was properly intent on encouraging a maximum output of coal from all mines, whether high-cost or low-cost mines, or producing superior or inferior coal. Not unnaturally, his policies clashed with those of the Purchasing Division, which sought to avoid getting coal of unsatisfactory quality for railroad use, and which sought prices it regarded as reasonable in the light of the large and regular railroad demand and of the profits which the mines supplying coal suitable for locomotive use (quite frequently the low-cost mines), appeared to be making. There were in consequence many differences of opinion as to the questions of broad policy and also as to innumerable questions of detail. Throughout the year 1918 the Fuel Section was largely absorbed in dealing with the Fuel Administration, and had little, if any, opportunity to negotiate with individual coal operators.

Without discussing the merits of the numerous differences as to policies or details, it may be said broadly that the Railroad Administration, despite its extraordinarily large and regular consumption of coal, much of it from low-cost mines, was required to pay the same price as other consumers, and that it required the unceasing efforts of the Fuel Section to get coal for railroad use of approximately the proper quality. The difficulty as to quality grew out of the universality of the Fuel Administration's policy and not out of any desire on its part to ignore the peculiar need of the railroads for coal of special quality.

One important controversy, however, should be mentioned. Before the War it was the general practice of the railroads in times of shortage of coal cars to place at mines under contract to furnish railroad fuel the full number of cars needed to load such railroad coal, although a full supply of cars could not be given to other

users. This had always been justified on the ground that the railroad must get its coal in order to be able to operate and carry the coal needed by others. Incidentally, this practice made contracts for railroad coal especially attractive to the mine operators because the mine with a railroad contract was assured of a regular car supply even in times of car shortage and hence was assured of regular operation. This advantage inclined the operators to sell railroad coal at a lower price.

The Fuel Administrator insisted that these long standing railroad practices must be abandoned during the War and that in times of car shortage cars must be placed *pro rata* at all mines and not otherwise, the Fuel Administrator claiming he could see that the railroads received the necessary supply of coal, even though it could not be obtained from the mines with which the railroads had contracts. The Railroad Administration vigorously resisted this proposal, but the President, the head of both Administrations, decided this point in favor of the Fuel Administration. This involved a complete reversal of railroad practice and a great many operating complications which were, however, gradually cleared away. When the elimination of the preferential car supply took place, the Fuel Administration reduced the price of all bituminous coal to all consumers 10 cents per ton, but the Railroad Administration still felt that the price remained much too high when applied to the coal supplied in such large quantities and with such regularity to the railroads.

On January 31, 1919, the Fuel Administration ceased regulating coal prices and coal allocation. The Railroad Administration was then able to assert its right to make contracts for railroad fuel in the light of commercial conditions. The Coal Operators Association and the United Mine Workers strenuously objected, fearing that intense competition and very low prices would result because of the severe decline in the demand, especially since the War had stimulated a great overdevelopment of mine capacity. They claimed that inasmuch as there was concentrated in the Railroad Administration the entire coal purchasing power of the railroads, it was contrary to the public interest for it to seek to negotiate contracts with particular coal operators, and that instead it should purchase coal as widely as it had been compelled to do during the War by the Fuel Administration, and should refrain from seeking to obtain prices based upon the low costs of the mines from which the railroads might

desire to obtain their coal. While these demands were regarded by the Railroad Administration as without merit, nevertheless the Purchasing Division's Fuel Section took certain precautions designed to avoid some of the difficulties thus feared. Accordingly, the Railroad Administration did not itself negotiate contracts for the railroads as a whole. Instead, the purchasing agents of the individual railroads were authorized to make their own arrangements for their supply. They were instructed to ask for bids based on the existing scale of mine wages and to refrain from making offers for coal, but merely to accept or reject offers made by the mines. The purchasing agents were also instructed to distribute their orders as widely as was consistent with good business judgment. They were further instructed to make public the prices and other essential conditions of all contracts as soon as made. It was felt that these precautions, although in no sense required by law or precedents, were in the general interest on account of the chaotic conditions after the Armistice and the serious concern felt both by coal operators and coal miners.

Notwithstanding these precautions, the railroads' purchasing agents were able to negotiate contracts for coal at prices averaging about 13½ per cent less than those fixed by the Fuel Administration.

The Railroad Administration in 1919 encouraged with good effect the accumulation during the summer of a storage supply of coal so as to employ coal cars when they would otherwise be idle and so as to give more continuous employment to coal mines and mine labor and thereby reduce the cost of mining.

The Fuel Section annually supervised the expenditure of approximately \$500,000,000. In 1919, more than 1,200 contracts for coal were made, covering over 143,000,000 tons, the small remainder of the necessary supply being bought as occasion demanded and as market prices warranted. In anticipation of the end of Federal Control, the railroad corporations were consulted during the negotiation of these contracts and their assent thereto was obtained.

Purchase of Locomotives and Cars and of Materials Generally.

The Railroad Administration contracted in April, 1918, for 100,000 freight cars and 1,270 locomotives and a few months later for

660 additional locomotives.¹ The Purchasing Division arranged for the delivery of the material therefor to the contracting locomotive and car builders and for the prices paid by them. In that work, as well as in the purchase of miscellaneous material for the railroads, great difficulties were encountered by reason of the war conditions.

Contracts for construction of the equipment were made with the three large locomotive works and the eighteen principal car builders of the country and all of the detail connected with the purchase and procurement of the material necessary for building it was carried out by the Central Advisory Purchasing Committee. These transactions involved an aggregate of \$380,036,000.

The contracts for the building of this equipment were unusual, if not unique, in that they provided a fixed profit for the manufacturers. An agreed allowance was made for labor and overhead charges, and any saving effected in this estimated cost was shared by the builders and the Railroad Administration. Due to the limited number of types to be supplied, the builders could make a steady run on a considerable number of each, and on this account the final cost to the purchaser was materially lessened.

In negotiating for the materials for the construction of this equipment, the Railroad Administration became practically the only purchaser of distinctively railway supplies in the country. Every manufacturer and dealer in railway supplies was represented in Washington, either in person or by proxy. This brought such numbers of industrial and commercial representatives to the office of the Central Advisory Purchasing Committee that they thronged the halls and overflowed into the streets and hotel lobbies. A subcommittee of three experienced purchasing agents was organized and to it was assigned the work of negotiating for and buying a large part of the material needed for this equipment.

In the matter of materials for the new equipment, the subcommittee of purchasing agents appointed to negotiate therefor, or the Procurement Section which succeeded it, kept in constant touch with the situation in each of the different locomotive and car shops, expedited shipment of materials, at times transferred surplus materials from one shop to another and on completion of work at one plant

¹ The standardization and allocation of this equipment are dealt with in Chapter VII, and the resulting financial arrangements with the railroad corporations are discussed in Chapter XII.

transferred materials to other shops, where it could be used on work still in progress.

Relations with the War Industries Board.

The Government's control of all industries through the War Industries Board² had the effect of bringing together competitors in the respective lines of business and of encouraging them to combine in units representative of the various industries for the purpose of the greatest and most expeditious production. This put an end for the time being to competition as it was known before the War. It had, to a large extent, the effect, as far as the Railroad Administration was concerned, of confronting it as a single buyer with a single seller, and this was true of railroad supplies generally as well as those used in the construction of the new equipment. This not unnaturally led to a crystallization of prices upon a high level, so high as to prove disappointing to the Railroad Administration in its capacity as a purchaser. As against these prices the Railroad Administration could appeal to the Price Fixing Committee of the War Industries Board.

The effort of the War Industries Board was to increase production of all essential materials. This carried with it the necessity for having them manufactured by high-cost as well as low-cost plants. The Price Fixing Committee had the problem of fixing prices which would encourage sufficient production to meet all requirements; consequently, it was not able to fix prices based on the lowest cost of production, but practically had to fix them on the highest cost of production. Of course, it was necessary to consider all costs of every character in such plants in reaching the basis, and to add to them a reasonable amount for depreciation, obsolescence and profit. This procedure had the effect of making prices abnormally high. In normal commercial times, the conditions are entirely different. Then the low-cost producers practically furnish the basis on which commodities

² The War Industries Board was composed of representatives of industry and was designed to coördinate industrial activities so as to direct their efforts into essential rather than non-essential channels, conserve the use of materials and labor while encouraging the maximum output of needed supplies, allocate business so as to control the distribution of raw materials and finished products, and establish maximum prices where the demand for certain commodities exceeded the supply.

must be marketed and the high-cost producers must be content with a narrower margin of profit and less allowance for depreciation and obsolescence.

The relations with the War Industries Board were, naturally, of vital importance to the Railroad Administration. Its Division of Purchases was represented through the Central Advisory Purchasing Committee or the managers of the sections of the Purchasing Division on the various commodities sections of the War Industries Board having to do with the production of materials used by the railroad. These representatives aided in the conservation of material and the standardization of production as to many railroad supplies. The Railroad Administration as a whole was represented on the Requirements Division and the Priorities Committee of the War Industries Board by T. C. Powell (in 1919 Director of the Division of Capital Expenditures), and on the Priorities Board of the War Industries Board by Edward Chambers (Director of the Division of Traffic), throughout Federal Control. The Purchasing Division's representatives were in constant touch with Mr. Powell and Mr. Chambers and it was through their joint efforts that the railroads obtained the material necessary for their uninterrupted operation. In the case of some raw materials of which the railroads were large consumers, and of which the supply was wholly insufficient, the War Industries Board placed the allocation of the entire supply in the hands of the Railroad Administration's Purchasing Division, to be distributed among the various consuming manufacturers in proportion to their essential needs. This was true of pig iron, scrap, car wheels and creosote. All railroad scrap material was distributed among consumers through the Scrap Committee of the American Iron and Steel Institute working in close coöperation with the Railroad Administration's Division of Purchases.

The Procurement Section, or the subcommittee of purchasing agents which preceded it, was able at times to obtain important quantities of material at prices substantially less than those demanded by the manufacturers and acquiesced in by the War Industries Board. Illustrations of this in connection with materials for the new equipment are paint for the 100,000 freight cars, on which over \$500,000 was saved, and steel and malleable castings for the equipment, on which a like amount was saved.

Conditions after the Armistice.

Conditions radically changed with the signing of the Armistice. Purchases were curtailed wherever that step could be taken without working hardship on the manufacturing industries, so as to reduce the abnormally large stocks of material which had been accumulated as a war-time necessity. As to some materials, such as cross ties, where there was an evident shortage in 1918, the Division of Purchases continued to speed up production. About the end of 1918, the War Industries Board suspended control of prices and the allocation of the various products to the consumers, and producers were thrown on their own resources. The situation seemed to call for a marked reduction in the exceedingly high war-time prices of materials. Producers were uneasy on account of the high labor costs which still prevailed. Organized labor gave notice that it would resist any decrease in wages. The immediate effect of the cessation of war-time control of the industries was a moderate reduction in the prices of coal and steel products, but a decided increase in the cost of some other commodities, notably forest products. Buying stopped quite generally, owing to the widespread expectation of a rapid decline in prices and there were indications that many men would be thrown out of employment.

Efforts were made to encourage government agencies such as the Railroad Administration to continue to buy upon a basis of reasonable prices to be fixed by agreement between such government buyers and important basic industries. One of the first concrete applications of this effort was in connection with the purchase of steel rail, but the steel industry was unwilling to make prices which the Railroad Administration felt were reasonable, so that little if anything came of the proposal to have the Government set the example by making substantial purchases.

The failure of the Railroad Administration's appropriation through a filibuster in the Senate up to the adjournment of Congress March 4, 1919,³ largely impaired the ability to purchase necessary supplies in the spring of 1919.

³ See Chapter XII on Finance.

*Establishing Coördinate Status of Purchasing Department in
Railroad Organization.*

The Central Advisory Purchasing Committee rendered a signal service to the Purchasing and Stores Departments of the railroads and to railroad managements and the public interest by taking the action necessary to give to the purchase and custody of railroad material a status equal to and fairly coördinated with the status of other leading departments of railroad management.

In the summer of 1918 the Director General reorganized the American Railway Association, which was composed of the executives and managing officials of the American Railroads and affiliated with it a number of independent associations of men engaged in several branches of the railroad service, some of which associations had been in existence for many years and had acquired a national prominence in railroad circles. Such a plan had been under discussion by the railroads for several years. The name was changed to the American Railroad Association, but the organization remained practically the same as before, except that the activities of those other associations which desired to unite with the parent body were continued, under its auspices, as sections of the parent body.

Five sections were provided for in the newly organized association embracing the operating, engineering, mechanical, traffic and accounting branches of the service. The various independent organizations were merged into the new Association, grouped under these several heads. No distinct provision was made for purchases. As to stores, the Railway Storekeepers Association, which had decided to join the main body, was, owing to the confusion as to its status, placed under the jurisdiction of Section I—Operating. The Central Advisory Purchasing Committee believed that the functions of purchasing and caring for materials and supplies should occupy a position as an independent department in the operations of the railroads and that its exclusive control by any one of them would tend to impair the close coöperation which should exist between it and each of the others. As a result of this view being pressed, a new subdivision of the Association was created, designated as Section VI—Purchases and Stores, thereby recognizing the service of supply as an independent department and giving it a status and prestige greatly in the interest of efficient railroad management.

Strengthening the Precedent for a Systematic and Uniform Organization for the Custody of Materials and Supplies.

The Purchasing Division rendered another valuable service to railroad management by developing a precedent for a clear-cut and uniform organization for the custody of materials and supplies.

At the beginning of Federal Control a few of the best managed railroad systems had already adopted an effective organization for controlling their very heavy investment in materials and supplies. But in a majority of cases there was no uniform or systematic way of protecting this large investment. Many of the railroads had a Stores Department and many others had not. In some cases it was under the direction of the purchasing agent; in others the general storekeeper reported to the general manager, and the local storekeepers to the master mechanic or division superintendent. In one instance the storekeeper reported to the president and in another to the auditor. Still others had no organization, the control of the material being left to the division superintendents, master mechanics and engineers. There was no uniform method of accounting for the material, although the expenditure for material was the equivalent of about 35 per cent of the annual operating revenues.

The decision was reached in October, 1918, to adopt the organization and methods which had already proved their superiority in actual practice and to place the supervision of the custody of materials and supplies under the jurisdiction of the Purchasing Division. It was found to be necessary to install a uniform method of accounting for material.

The Stores Section of the Purchasing Division followed this matter up with great attention and became convinced by numerous comparative studies that very substantial savings in investment were shown by those railroads having the most completely and soundly organized departments for the custody of material. Frequently substantial opposition was encountered on railroads having less well organized services of this character and showing as a consequence less economy in the investment in material and in the handling thereof. It is believed, however, that the steps thus taken constitute a distinctly valuable precedent which can be consulted with advantage by railroad organizations which have not yet put their stores organization on the most approved basis.

Distribution of Coal in the Bituminous Coal Strike, November and December, 1919.

The Division of Purchases rendered an extremely important public service in November and December, 1919, by assuming and discharging the responsibility for the allocation of the coal supply during the virtually nation-wide bituminous coal strike which was called on November 1, 1919, by the United Mine Workers and which stopped practically all production of bituminous coal in the Central competitive district embracing western Pennsylvania, Ohio, Indiana and Illinois, as well as the smaller districts of the Middle West, particularly in Iowa, Missouri, Kansas and Oklahoma.

When it became evident that this strike was inevitable, the Director General of Railroads offered his organization as a means of administering orders which the Fuel Administrator, whose organization had been disbanded, might make relating to prices and distribution of bituminous coal. On October 30 the President restored the orders of the Fuel Administration relating to prices and distribution of bituminous coal, and the Director General of Railroads was designated by the Fuel Administrator, whose organization had been completely disbanded, as his representative to carry these orders into effect. This work was placed in the hands of a Central Coal Committee which consisted of the Director of Purchases, and three other members of his staff, and representatives from the Divisions of Operation, Traffic and Law, and the Fuel Administration and the United States Shipping Board. The details of the work were carried on by the Division of Purchases. Regional and district committees were created in all sections of the country to handle the details of the work under the direction of the Central Coal Committee, and at midnight on October 31 the Railroad Administration, through this committee, took and held all of the bituminous coal then in its possession as a common carrier and thereafter actively directed the distribution of the entire supply to all essential consumers, in accordance with the priority orders of the Fuel Administration. This included shipments for export which were controlled through the period of the strike by a system of permits.

The distribution of the coal supply involved ascertaining the needs of the various parts of the country and devising a means to meet them, and also of protecting the payments for shipments which were

diverted from their original channels. It necessitated the transportation of extraordinary amounts of coal from mines continuing at work in Pennsylvania and West Virginia to new and distant destinations in the west and south.

As the reserve supply was gradually reduced, and the needs of essential consumers became more urgent, it was necessary to place stringent restrictions on non-essential use of coal. It even became necessary to make general and radical reductions in passenger train service on all railroads. By such expedients the available supply was so conserved and distributed that the emergency needs of all essential consumers were provided for during the six weeks of the strike, although much difficulty was experienced in supplying some of the non-essential industries, and some had to suspend operation during the latter part of the strike.

The diversion of numberless shipments which was necessary to secure an equitable distribution unavoidably resulted in confusion and delay in making payment for coal, owing to the difficulty of identifying the rightful payee. In spite of all practicable precautions, there were many vexatious delays. These, however, were unavoidable in a situation of such extraordinary complication which had to be met by measures formulated almost overnight. A great public benefit was rendered by the arduous work performed by the Railroad Administration's organization, the only one in existence which was in position to function on short notice and with the minimum of delay.

CHAPTER IX

RELATIONS OF THE RAILROAD ADMINISTRATION WITH THE PUBLIC

EVEN during the period of hostilities, when all other considerations had to be subordinated to winning the War, solicitude was felt for the public service aspect of railroad operation. The formal announcement of the Director General's staff by Circular No. 1 on February 9, 1918, showed the formation of the Division of Public Service and Accounting and designated as the Director of that Division Charles A. Prouty of Vermont, who had had a distinguished career as a member of the Interstate Commerce Commission for seventeen years, and thereafter had been Director of its Bureau of Valuation for four years. He was a man of ability and foresight, with a very keen interest, even during the war period, in matters affecting the normal rights of the traveling and shipping public.

After the Armistice, and during the provisional period in which the Railroad Administration held the railroads pending the completion of legislation for their being turned back to their owners, the Railroad Administration could and did seek to diminish restrictions which had arisen from war necessities and to promote the public convenience to the greatest extent then practicable.

On February 1, 1919, with a view to expanding the activities in behalf of the public, the Division of Public Service and Accounting was divided into the Division of Accounts of which Mr. Prouty continued for the time being as Director, and the Division of Public Service of which Max Thelen was appointed Director. He had shown marked ability and vigilance as a member and afterwards Chairman of the California Railroad Commission, and also as President of the National Association of Railway Commissioners.

Throughout the period of Federal Control the interests of the public service were aided by the fact that Edward Chambers was the Director of the Division of Traffic which was so intimately involved in matters affecting the interests of shippers. Mr. Chambers, for many years before Federal Control and for many years after its termination, and until his death on February 11, 1927, was Traffic Vice-President of the Atchison, Topeka & Santa Fe Railway Com-

pany. In matters affecting rates, classifications and other subjects pertaining to traffic problems, both as to passenger and freight business, Mr. Prouty and Mr. Chambers, and, afterwards, Mr. Thelen and Mr. Chambers, worked in the closest coöperation.

The Division of Operation also worked with a clear appreciation of the importance of meeting the public convenience as far as practicable, and, especially after the Armistice, was able to shape its course so as to promote the objectives of the Division of Public Service. Prior to the Armistice there was but little room for promoting the public convenience, since the paramount motive was to move traffic to meet war needs. Illustrations of this were the taking off of many passenger trains and the restrictions on non-war traffic such as materials for building highways.

Especially after the reorganization of the Division of Public Service on February 1, 1919, when the absence of war requirements made it practicable to do so, it was the policy of the Railroad Administration that the public interest must be kept steadily in mind in steps taken affecting transportation, and to insure the realization of this view, it was understood that the Division of Public Service must be consulted on matters affecting the public interest in a substantial way. It was likewise the policy of the Railroad Administration to avail itself of every reasonable opportunity to hear and consider the points of view of the public through the Interstate Commerce Commission and the State Commissions, and the numerous commercial and shipping organizations throughout the country. These policies and the results may be illustrated by referring to some of the leading activities affecting the public interest.

Rates.

Beginning with the post-armistice reorganization in 1919, no adjustment of rates could be made by the Division of Traffic without notice to, and acquiescence of, the Division of Public Service. In event of disagreement between those Divisions, the matter was referred to the Director General and decided by him. As to important matters concerning rates it was the desire and practice of the Divisions of Traffic and of Public Service to consult with the Interstate Commerce Commission. Among the important matters as to which the Railroad Administration asked and followed the advice of the Interstate Commerce Commission were the following: Consolidated Classi-

fication; Perishable Freight Tariff No. 1; Illinois Classification; rates on ex-lake coal; class rates from Central Freight Association Territory to the Southeast; and rates on Northwestern grain.

In 1918, in order to bring about greater efficiency as well as expedition in the method of handling changes of rates, general and district freight traffic committees were appointed and the innovation was adopted of having upon each of these committees one or two members selected, with the approval of the Public Service Director, by the general business interests of the section over which such committee had jurisdiction. The shippers' members participated actively in the work of their respective committees. There were thirty-three of these committees. In February, 1919, additional shippers' representatives were placed upon these committees so that there was an equal representation of the railroad management and of the shipping interests. Changes in freight rates were referred to the appropriate freight traffic committee, and public hearing was held and thereafter the committees' recommendations were forwarded to the Directors of Traffic and Public Service in Washington either directly from a general committee or through the general committee, if from a district committee. It was the earnest effort of the Divisions of Traffic and Public Service, particularly in 1919, when the post-armistice conditions made it more feasible, to secure the promptest practicable disposition of petitions for freight-rate changes. By the beginning of July, 1919, new methods of expediting these petitions were made effective. As a result, in the months July to November, both inclusive, the average time for the consideration of these applications by the freight traffic committees was less than two months and the average time of their pendency before the Divisions of Traffic and Public Service in Washington was less than fourteen days.

Service, Freight and Passenger.

One of the important functions of the Division of Public Service was to consider whether the transportation service was reasonably meeting the demands of the public. The Division entertained a great many complaints bearing on this subject, made appropriate investigations, frequently seeking the coöperation of the State Railroad Commissions, and then, in conjunction with the Divisions of Operation and Traffic, such adjustments were made as seemed to be warranted. Examples of matters of this character were restoration of

passenger service which had been suspended during hostilities, readjustments of passenger train schedules, improvement in facilities afforded at passenger stations, putting on additional freight trains, relieving, if possible, discrimination in distribution of cars in time of car shortage, revision of the "sailing day plan" (adopted in 1918 to concentrate the movement of less-than-carload freight on the shortest and most economical routes), so as to give more frequent service.

In order to expedite the movement in important terminals, secure heavier loading of equipment and increase freight car efficiency, special terminal committees were created in seventy-three cities in September, 1919. These committees investigated and dealt with such subjects as adequacy or inadequacy of switching locomotives, delays in handling cars, non-repair of bad order cars, and failure to load cars to their full capacity. Each of these terminal committees consisted of a number of local representatives of the Railroad Administration and one representative of the shippers appointed by the Division of Public Service on the recommendation of shippers' organizations. Valuable results were accomplished by these committees, including that of giving the shippers themselves, through their representatives, a clearer understanding of the practical operating necessities of the situation.¹

In 1919, when the war exigencies no longer prevented it, special efforts were made by the Railroad Administration to diminish the discomforts of passenger travel as far as practicable, and the Divisions of Operation, Traffic and Public Service coöperated heartily to that end. There were, however, severe limitations on what was practicable, because it had not been possible (for reasons dealt with in Chapter XII on Capital Expenditures, Finance and Accounting) to increase the amount of passenger equipment, either coaches, dining cars or sleeping cars, and nevertheless there had been an enormous increase in passenger travel.

¹ Since the return of the railroads to private control, the railroad companies have developed a very important and valuable contact with the shippers through a series of regional committees throughout the country. At the meetings of these committees on which both the railroads and the shippers are represented, the needs of the shippers and the ability of the railroads to supply those needs are discussed and efficiency as well as knowledge and understanding are thereby promoted.

During the War numerous passenger trains were removed, largely because of the necessity for making passenger train equipment available for the movement of troops, but beginning with the signing of the Armistice and continuing throughout the year 1919 much of the passenger service so curtailed was reestablished. Some passenger trains were reinstated even though it was reasonably certain that they would be operated at a loss, for the reason that it was clear the existing service did not reach the minimum to which the public was reasonably entitled. In the western part of the country passenger train mileage added was in excess of the passenger train mileage canceled during the War. For the country as a whole, out of a total of 67,290,562 passenger train miles, on an annual basis, eliminated in 1918, 11,461,758 miles, on an annual basis, were restored during 1919.

In addition, some of the limited trains were restored to their former schedules, a number of observation car services which were canceled during the War were put back into service and some additional sleeping car lines were inaugurated. A constant and successful effort was also made throughout the year to improve connections between passenger trains at interior junctions.

Persistent efforts were made to reduce the proportion of delayed trains and, despite the fact that heavier trains had to be hauled in order to accommodate the travel, the records indicated that on the average the percentage of trains on time and making up time was as good as in the pre-war period when travel was more normal, and on some important lines was considerably better.

There having been no increase in the number of dining cars during Federal Control, the great increase in the number of passengers necessarily impaired the dining car service. Ford Harvey, the head of the Harvey hotel and dining car system on the Atchison, Topeka & Santa Fe Railway, was invited to Washington to act as the head of an advisory board to devise the best means of coping with this difficulty, and the advice and suggestions of the board so organized were relied upon and adopted as far as practicable.

Suggestions and Complaints.

The Bureau for Suggestions and Complaints was established in the summer of 1918 and was put in charge of Mr. Theodore H. Price. After his resignation this bureau was on February 1, 1919,

made a part of the Division of Public Service. The function of the Bureau was to invite and receive complaints, commendations and suggestions.

The letters received by the Bureau covered almost every branch of railroad service, in connection with the transportation of passengers, freight and express. The number of initial letters received varied from a maximum of 3,702 in September, 1918, to 691 in November, 1919. The falling off in the number of these letters was due to a combination of causes, including (a) the wearing off of the novelty of the Bureau, (b) the improved service, both freight and passenger and (c) the fact that the rapidly nearing termination of Federal Control steadily diminished its ability to be helpful concerning suggestions for the future.

Relationships with State Railroad Commissions.

The relationship of the State railroad commissions (or public service or utility commissions as they are frequently designated) with the Railroad Administration was a matter of importance and delicacy. Prior to Federal Control these State commissions had and exercised extensive authority over the intrastate rates and intrastate service of the railroad companies. This authority was beyond the control of the Federal Government except in cases where it could be shown that the action of the State body violated some provision of the Federal Constitution or statutes made in pursuance thereof. For practical purposes the actions of the State commissions were generally free from any interference by Federal authority except in cases where the courts might hold that such actions operated to deprive the carriers of their property without due process of law, or where the Interstate Commerce Commission might hold that the rates prescribed by State authority, though confined to traffic between points in that State, nevertheless operated to create an undue prejudice as to interstate traffic having some important relationship to the intrastate traffic.

With only such limited opportunities of Federal interference, it followed that the State commissions had very independent authority and naturally were jealous of any encroachment upon it. When the Federal Government took possession and control of the railroads as a war measure, it was evident that it could not be subject, except so far as it chose to be, to any manner of control by State commis-

sions even as to intrastate rates or service. The exigencies and pressure during the period of hostilities were such that there was not satisfactory opportunity for the Railroad Administration even to look to the State commissions for advice. For example, in the general rate advance in May, 1918, the Railroad Administration did not consult the State commissions in advance at all, but upon issuing the order explained to them the necessities of the situation and the reasons why consultation in advance was not feasible.

After the Armistice the State commissions became quite insistent that they were entitled to be consulted, and further urged that they had the constitutional power to control matters of intrastate rates and service even though the railroads were being operated by the Government. In the early part of 1919, acting through and upon the advice of the Director of the Division of Public Service, the Director General, believing the public interest would be greatly promoted by getting the advice and coöperation of the State commissions, whose members were so well acquainted with local needs, took steps to promote close coöperation with the State commissions. After conference with the representatives of the State commissions, General Order No. 58 was issued. By this order the Director General, in effect, subjected the Railroad Administration to the regulations of the states and their commissions in such local matters as spur tracks, railroad crossings, and station facilities, and the Director General directed the officers and employees of the Railroad Administration to recognize the jurisdiction of the State commissions and to coöperate with them, and declared it to be his policy to cause the orders of the State commissions in these matters to be carried out. The Director General, however, was unwilling to accord to the State commissions jurisdiction over intrastate rates, but agreed to expedite in every way a final decision of this question. Under this policy the Railroad Administration and nearly all the State commissions worked together in the utmost harmony. The State commissions and other local authorities displayed great forbearance in calling for local public improvements which would involve substantial capital expenditures. The disputed question as to jurisdiction over intrastate rates was settled in the North Dakota rate case on June 2, 1919,² by the Supreme Court of the United States which upheld the Director General's contention that intrastate rates prescribed by the

² *Northern Pacific Ry. Co., v. North Dakota*, 250 U.S. 135.

Federal Government could not be modified or affected by State authority. Nevertheless, the Railroad Administration continued to seek the advice and suggestions of affected State commissions before authorizing rate changes of importance. The advice of the State commissions was generally helpful and there were few cases in which the final action of the Railroad Administration failed to harmonize with such advice.

Freight Claims.

Strong effort was made by the Railroad Administration to improve the situation as to freight claims. Early in 1919 the Director General appointed a committee under the chairmanship of Director Thelen with members from the Divisions of Operation, Accounting, Law and Traffic, to find ways to expedite the disposition of claims for overcharges and for loss and damage to freight, and also to consider means of diminishing the causes for such claims. The matter was taken up actively with the Divisional and Regional Directors and Federal Managers. The total number of loss and damage claims on hand unsettled was reduced about 48 per cent from March 1 to November 1, 1919. The number of unpaid overcharge claims more than 90 days old was reduced by 80 per cent between January 31 and September 30, 1919.

CHAPTER X

GOVERNMENT'S CONTRACT RELATIONS WITH CARRIER CORPORATIONS

It will promote a clearer understanding of the chapters immediately following to discuss at this point the relations between the Government and carrier corporations.

Contract Relations with Corporations Whose Properties Were Taken Over and Directly Operated.

The Government took over railroad and other carrier properties for war purposes on the theory, of course, that the owning corporations would be reasonably compensated for the use of their properties and that proper maintenance would be put upon the properties or accounted for. While the rights of the owners might have been asserted in and protected by the courts in the absence of any formal contract, it was generally recognized that it would be in the interest of all concerned to define the rights and obligations of the Government and of the respective owning corporations by written contracts. Express authority to that end was given the President by the Federal Control Act of March 21, 1918.

The problem presented was without precedent in the magnitude of the transactions or in the character of the questions. The properties taken over comprised (with the exception of short-line railroads) practically all of the railroad mileage of the United States. There were 532 properties taken over and actually operated with a total trackage, including main line, passing tracks, switch yards and terminals, of 366,197 miles, together with all of the bridges, buildings, stations, roundhouses, shops and other appurtenances connected with the operation of the property taken over, and materials and supplies in excess of \$532,000,000.

On January 1, 1918, the freight cars in service and taken over aggregated 2,408,518, the locomotives 66,070 and the passenger cars about 55,939.

The railroad properties taken over had a book value as of December 31, 1917, of approximately \$18,000,000,000.

In addition, there were taken over the Pullman Company sleeping and parlor car lines, the Cape Cod Canal, and the Delaware & Raritan Canal (the latter a subsidiary of the Pennsylvania Railroad Company), about 25 coastwise and Great Lakes steamship lines, docks, wharves and floating equipment used in harbors by railroads, sundry private car lines, grain elevators owned and operated by railroads, sundry electrically operated lines and three waterworks companies owned and operated by railroads, which, in addition to furnishing water to the railroads, furnished water to municipalities.

The general problems involved in formulating contracts for the properties taken over will be sufficiently indicated by outlining the most important of those problems and showing how they were dealt with in the case of the railroad systems of the country.

Compensation To Be Paid Carriers.

The Federal Control Act, following the principle indicated in the President's Proclamation, authorized the President to agree with any carrier making operating returns to the Interstate Commerce Commission to pay compensation on an annual basis not exceeding the carrier's average annual railway operating income for the three years ending June 30, 1917. Such three-year period was known as the "test period" and such average annual income was known as the "standard return."

The Federal Control Act authorized the President to agree with the carrier upon compensation in addition to the standard return, where he believed the basis of the standard return was plainly inequitable, due to exceptional conditions during the test period. Numerous applications were made by carriers for substantial increases in compensation on the ground that alleged exceptional conditions during the test period made the standard return plainly inequitable, but after careful analysis these claims were disallowed in large part. The additional compensation allowed was less than 3 per cent of the aggregate standard return.¹ The Federal Control Act provided for carrying cases of disagreement before boards of referees appointed by the Interstate Commerce Commission and, if necessary, before the Court of Claims. While some proceedings of this character were started they were not carried to a conclusion and all claims by

¹ See Director General Davis' Report for 1924, pp. 7 and 65.

railroad companies for increased compensation were eventually settled by agreement with the Director General representing the President.²

While in theory the carrier had the conceded right to take the entire question of compensation to the courts for a decision, it was generally recognized that the statutory basis of the standard return was the fairest and most practicable plan for arriving at a reasonable result. It was the rule adopted by the Government, and acquiesced in by the carriers, not only by those making contracts but also by those not making contracts, excepting only in a comparatively few cases where compensation in addition to the standard return was agreed to as above explained.

As a result of the adoption of the basis above outlined, the Government accounted for compensation for the railroad properties taken over in the sum of \$2,036,400,000, or at the rate of \$940,000,000 per year for the period of Federal Control.

The Standard Contract.

Immediately following the passage of the Federal Control Act, negotiations began between the representatives of the Railroad Administration and the representatives of the railroad companies for a standard form of contract clause to be used as the basis for individual contracts with the railroads. The Director General appointed as a committee to represent the Government the following:

John Barton Payne, General Counsel,
Nathan Matthews, Special Counsel,
C. A. Prouty, Director of the Division of Public Service;

and Interstate Commerce Commissioners,

E. E. Clark,	H. C. Hall,
B. H. Meyer,	G. W. Anderson.

Months of negotiation, proposals and counter-proposals, and extended discussions and arguments ensued. After the committee representing the Director General had agreed as far as practicable with the committees representing the railroad companies and their se-

² Director General Davis' Report for 1924 shows that as to the claims of the Denver & Salt Lake and an affiliated terminal company, final settlement would have to await winding up of receivership then pending.

curity holders, the latter carried numerous questions to Director General McAdoo for his personal consideration. Upon his decision being made, a final agreement was reached and the form of standard contract clauses as finally agreed upon was announced September 5, 1918. By this procedure, the Railroad Administration became practically bound to accept these clauses in every case, but a railroad company was not compelled to make a contract, and had the option to refrain from doing so if it preferred to rely upon its statutory and constitutional rights independent of a contract.

The form of Standard Contract containing these standard clauses is shown in the appendix to this chapter. The general framework of this form was as follows:

Section 1 consisted of definitions and other introductory matter.

Section 2 defined the property taken over, and, generally speaking, provided for the taking over of all property whose net earnings had gone into producing the standard return during the test period.

Section 3 contained the company's declaration of its acceptance of the Federal Control Act and of the orders thereunder, and its acceptance of the covenants of the Director General as full satisfaction for the use and possession of the property taken over and for damages on account of diversion of traffic.

Section 4 contained extensive provisions for dealing with cash received and expenses paid, after the beginning of Federal Control, for railroad account prior to Federal Control; provided for the allocation of revenues as of the beginning and as of the end of Federal Control; provided for allowance by the Government of interest on improvements added during Federal Control; required the corporations to pay salaries and other expenses incident to corporate management and not to Federal Control; gave the Director General the right to substitute himself at his option in operating the contracts held by the carrier, *et cetera*.

Section 5 dealt with maintenance, overmaintenance, loss by fire, depreciation on additions during Federal Control, and provided that disputes thereunder should be referred to the Interstate Commerce Commission for final decision, except that questions of law might be taken to the courts.

Section 6 dealt with taxes.

Section 7 dealt with compensation, and dealt at length with the question of deductions which the Government might make from the compensation due the carrier in order to meet obligations of the carrier to the Government, and also subjected to the approval of the Director Gen-

eral issues of securities and other corporate transactions affecting the property under Federal Control.

Section 8 dealt with claims on behalf of the carrier for losses incurred by it by reason of the making of additions and betterments during Federal Control.

Section 9 dealt with final accounting.

Some of the most important questions arising in the course of these negotiations were the following:

Claims for Diversion of Traffic.

Strong opposition was offered by the carriers to the provision whereby, in consideration of the compensation paid, the carriers were to release the Government from any claims for damage on account of the diversion of traffic or business during Federal Control. It was urged that the contract ought to leave this question open for the assertion of claims by the carrier at the end of Federal Control. But the provision was retained, the Director General holding that recognition of any right on the part of the carrier to assert such claims would be unreasonable, and would put the carriers making contracts in better position than those not making contracts and that, besides, the Federal Control Act contemplated that the compensation fixed in a contract should cover all damages and that he had no authority to recognize the right to claim additional damages.

Working Cash Capital.

The committee representing the Director General claimed that the compensation basis on the standard return should cover the necessary working cash capital of the railroad companies, inasmuch as such working capital was a part of the plant which had earned the standard return during the test period, and hence the Director General would, through paying compensation based on the standard return, be paying compensation for the use of the working cash capital. This position was objected to by the carriers and the Director General waived his contention and allowed the contract to provide in effect that the railroads, in addition to the compensation based on the standard return, should receive interest on such working cash as the Director General might receive from the carriers.

Maintenance and Overmaintenance.

There was great contention as to the maintenance provision. The railroad companies sought to get a provision which would make the physical condition of the property at the beginning of Federal Control the governing test of the maintenance for which the Government would be liable. The Government insisted that the Director General should have the option of adopting the accounting test, that is, the average annual amount of maintenance put upon the particular property by the owning carrier during the test period as shown by its books, with allowance for difference in cost of materials and labor during the period of Federal Control. The contract as finally formulated provided for the accounting basis as an alternative basis which the Director General might employ at his option instead of being confined to the actual physical test. The railroad companies also sought to have the provision contemplating an allowance for difference in cost of materials and labor expressed in such manner as to enable the companies to claim that lower efficiency of labor, as well as higher wages of labor, should be considered. The Government refused to concede this claim. Although the language of the upkeep provision was not entirely free from ambiguity on the two points discussed in this paragraph, the Interstate Commerce Commission adopted a view consonant with the Government's contentions.³ Hence, in the adjustments made with the carriers after the end of Federal Control, the Government enforced its contentions (1) that it had the right to have its maintenance obligations tested by the accounting method and (2) that the speculative question of relative efficiency of labor should not be taken into consideration.

The carriers also objected strongly to the contract authorizing the Director General to charge to the carrier expenditures made for the purpose of putting the property in better condition than it was at the beginning of Federal Control. The Director General contended that this ought to be done and at the expense of the carrier, if the property was not in condition for safe operation, and a provision was finally inserted on this point, but with such limitations as to have only a slight value to the Government, as is pointed out in the chapter on Maintenance.

³ Finance Docket No. 1176. Maintenance Expenses under Section 209, 70 I.C.C. 115. Finance Docket No. 2797. Treatment of Salvage Piecework and Prices under Section 209, 82 I.C.C. 678.

Deductions from Compensation.

The carriers were greatly concerned to guard against the Government making too great deductions, on account of its claims against the carriers, from the rental due them. After prolonged debate and negotiation as to the extent of the safeguards in this respect, section 7 of the contract recognized the Government's right to deduct from installments of compensation due the carrier amounts due by the carrier for expenditures made by the Government on the carriers' behalf for additions and betterments and on certain other accounts, but it was stipulated that as to the deductions for additions and betterments and for expenditures to correct undermaintenance, the right of deduction should not be so exercised as to prevent the carrier meeting its reasonable expenses for corporate organization and its bond interest and other fixed charges, and there were certain other limitations upon deductions as will appear from section 7 of the contract as shown in the appendix to this chapter. The section further declared that the right of deduction was an emergency power to be used only when the Director General found no other reasonable means provided by the company to reimburse the Government, and that it would be the policy of the Director General so to use such power of deduction as not to interfere necessarily with the regular payment of dividends as made by the carrier during the test period.

Corporate Salaries and Other Expenses.

As pointed out in Chapter III, the Director General decided to separate the corporate organizations entirely from the government operation of the railroads. Generally speaking, the operating and accounting forces were taken over by the Government for the purpose of conducting operations and the officers thus taken over disassociated themselves from the carrier corporations. Many of the railroad presidents resigned as such and served the Railroad Administration on the Central Organization or as Regional Directors or Federal Managers. But many other presidents already in office remained with the carrier corporations, as did certain other corporate officers. Director General McAdoo ruled that the Government would not pay the salaries of the officers and expenses of the offices not taken over by him but remaining in control of the cor-

porations. The corporate expense which the Director General thus declined to assume amounted to \$7,057,011 in 1918 and to \$17,368,858 in 1919.⁴ The carriers insisted that they were entitled to have these expenses paid by the Government; that the theory of the President's Proclamation and of the Federal Control Act was that the carriers were to receive compensation on the basis of the average annual net railway operating income for the test period and that the compensation paid them would fall short of meeting this standard, if they had to pay certain corporate expenses which during the test period had been deducted before arriving at the net railway operating income. The Director General, however, declined to adopt this view, insisting that it was not equitable for the Government to pay expenses which during Federal Control were incurred solely for the benefit of the corporation. He held, moreover, that the Federal Control Act left a margin of discretion with the President in this matter, since it did not require the President to pay a compensation equal to the average annual net railway operating income of the test period, but merely authorized him to pay a compensation not exceeding such amount.

Government's Relations with the Short-line Railroads.

The foregoing outline of contract relations applies to the railroad systems which were taken over by the Government, including, generally speaking, the Class I railroads and a few smaller railroads. The great bulk of smaller railroads, generally referred to collectively as the "short lines," was not so dealt with.

The Class I railroads taken over (with their subsidiaries) by the Government produced over 98 per cent of the total revenues of all railroads taken over by the Government.⁵ Most of the independent small railroads or short lines were never operated by the Government or treated by the Railroad Administration as taken over. This general question of the short-line railroads calls for an account of the

⁴ Interstate Commerce Statistics of Railroads in the United States for 1918 and 1919. The figures shown are the General Expenses paid in those years by the carrier corporations.

⁵ Class I Roads—Annual Operating Revenues over one million. Class II Roads—Annual Operating Revenues one hundred thousand to one million. Class III Roads—Annual Operating Revenues under one hundred thousand.

attitude of the Railroad Administration and of the attitude of Congress.

Immediately after the issuance of the President's Proclamation, many of these short lines evinced a great anxiety to be treated as taken over by the Government so as to escape the risks of operation and obtain instead a rental from the Government. This anxiety was well founded on account of the increases, actual and prospective, in the cost of material and labor, the congestion and delay in handling traffic, and the difficulty of obtaining rates reflecting the increased costs. The Railroad Administration, however, felt that the necessities of the War did not require taking possession and control of these short lines and that they were not within the intended scope of the President's Proclamation or of the broad general orders which were issued by the Director General immediately upon assuming control. The General Counsel of the Railroad Administration promptly ruled that these short lines could not be regarded as "systems of transportation" within the meaning of the President's Proclamation. The Railroad Administration, when it actually began directing the operations of the railroads under its control, took care to see that its orders did not apply to these short lines. It sought, moreover, to impress upon the short lines that under all the circumstances they would enjoy certain advantages by reason of not being taken over, since they would thereby probably escape the full measure of the wage increases which appeared inevitable for all the railroads for which the Government was responsible.

Director General Davis in his Report for 1924 points out that there were about 850 independent short lines of railroad located all over the country; that the Railroad Administration did not take over their active operation and no Federal Managers for them were ever appointed; that the funds of the companies were not taken over and the properties remained in the possession of their respective owners and were operated just as they had been under private control.

Nevertheless the short lines were very much alarmed as to their situation and continued to insist that they had been taken over and that the Government was under obligation to assure them a compensation during the period of Federal Control. The Federal Control Act provided in Section I, in effect, that short lines competing for traffic with a railroad of which the President had taken posses-

sion should be considered as within Federal Control, necessary for the prosecution of the War and entitled to the benefit of the act. But Section 14 of the act provided that the President might, prior to July 1, 1918, relinquish control of any railroad whose further control he might not deem needful or desirable. Pursuant to this provision, the Director General formally relinquished control of each and every short line prior to July 1, 1918.

The solicitude of the Director General for the welfare of the short lines was shown in May, 1918, when he increased rates and wages. He did not impose the wage increases on the short lines, but, taking advantage of the fact that by the Federal Control Act these short lines had been placed technically in Federal Control, he made the rate order broad enough to give them the benefit of the increased rates.⁶

On July 29, 1918, provision was made for a Short Line Section of the Division of Public Service, this section being charged with the duty of seeing that the short-line railroads received (a) a fair division of rates; (b) fair treatment in the routing of traffic; (c) a reasonable share of the available car supply; (d) helpful coöperation as far as consistent with war conditions and (e) fair dealing in general in their relations with other railroads.

At the time of the relinquishment of the short lines prior to July, 1918, the Railroad Administration announced that a policy of coöperation would be maintained. Extensive hearings and discussions took place, as a result of which in October, 1918, a special form of coöperative contract was formulated for the use of such short-line carriers as might desire to make such a contract. This form of contract canceled the order of relinquishment, and recognized that the railroad was within the scope of the Federal Control Act as fully as if the relinquishment had not taken place, but declared that the possession and use of the railroad was in its owner and at its risk and without compensation from the Government, subject to the right of the Director General to take the railroad over if necessary. The Director General undertook by the contract (a) to give fair divisions of joint rates on through traffic, (b) to make an equitable allotment of cars, (c) to give two days' free of per diem charge on freight cars in the case of railroads of one hundred miles or less in length, (d) to give the carrier in any month the same proportion of

⁶ See General Orders Nos. 27 and 28.

competitive traffic as was enjoyed during the test period and (e) the company was, as far as practicable, to have the use of the purchasing agencies of the Railroad Administration in the purchase of materials and supplies at the same prices as the Director General paid, and to use on reasonable terms the shops of connecting railroads under Federal Control. In February, 1919, this form of contract was modified at the suggestion of some of the short lines. Moreover, since some of them did not wish to make the coöperative contract, but were anxious to obtain the two days' free time in the use of freight cars and the undertaking to provide the same proportion of competitive traffic as was enjoyed during the test period, they were accorded these benefits upon execution of a waiver of all claims against the Government under the Federal Control Act for anything done or omitted by the President or the Director General.

Numerous carriers executed the coöperative contracts or waivers, but numerous other carriers refrained from doing so.

Some of the short lines continued to feel great concern about their status and the solicitude of Congress for the short lines was such that under the Transportation Act of 1920 it was provided in Section 204 that any railroad carrier which during any part of Federal Control operated its own railroad or system of transportation and in so doing sustained a deficit in its railway operating income, should be entitled to reimbursement by the Government. The practical working out of this provision has not yet been cleared up, and its meaning is still in litigation.⁷

Government's Relation to Express Situation and Results of Operations.

The Railroad Administration sustained with reference to the express situation a very important relationship, differing, however, from the relationship to the railroad companies. In addition to describing that relationship here, it will be convenient to refer also in this connection to the results of express operation.

The express business of the country, that is, the transportation of freight, principally small package freight, on passenger trains or trains on passenger train time, was not handled by any of the

⁷ Director General Davis' Report for 1924 showed that up to the end of that year \$732,240.11 had been paid in settlement of claims presented by short-line carriers.

railroad companies. Each railroad company had an exclusive contract with some express company to do this business. There were seven of these express companies.⁸

The property and operations of these express companies were not taken over by the President's Proclamation of December 26, 1917.

Upon the initiative of C. A. Prouty, Director of the Division of Public Service and Accounts, the express business of the various express companies was unified and placed in the hands of a single express company, the American Railway Express Company, which thus came into the management of all the express lines in the country operating over railroads under Federal Control. A contract of June 26, 1918, was entered into between the Director General and the American Railway Express Company whereby the express company was made the sole agent of the Government, under the supervision of the Director General, in conducting the express transportation business upon lines of railroad under Federal Control and upon such other systems of transportation as the Director General might deem necessary. This contract provided that the express company should, out of its gross revenues, pay to the Government 50.25 per cent, this being compensation for its privilege of using railroad facilities and services and having its express traffic hauled by the railroads. Out of the balance of the income of the express company there was to be paid the operating expenses of the express company and the remainder was to be treated as income for division between the Director General and the express company as follows: the express company was first to receive an amount equal to 5 per cent on its capital stock; then the balance up to 2 per cent on the express company's capital stock was to be divided equally between the Director General and the express company; the remainder of the income was to go

⁸ The four principal express companies, stated in the order of the amount of their gross operating revenues, were the American Express Company, Wells-Fargo & Company, Adams Express Company and Southern Express Company. The railroads over which one or the other of these four companies operated comprised practically all the railroad mileage in the country with the exception of that of the Great Northern Railway Company, the Northern Pacific Railway Company and the Minneapolis, St. Paul & Saulte Ste. Marie Railway Company, each of which had its own express company, these being respectively the Great Northern Express Company, the Northern Express Company and the Western Express Company.

into a guaranty fund up to an amount equal to 10 per cent of the express company's capital stock, and at the end of Federal Control this guaranty fund, to the extent that it was not needed to protect the 5 per cent dividend on the express company's stock, was to be divided, 40 per cent to the express company and 60 per cent to the Director General. Any excess of income over and above full provision for the guaranty fund was to be divided on a sliding scale between the Director General and the express company, the latter's proportion decreasing with the increase in the amount to be divided. The contract also provided that if the gross income remaining after paying the Government 50.25 per cent of the revenues was not sufficient to pay the operating expenses and taxes of the express company that the deficit should be made up by the Director General.

On November 16, 1918, the President issued a Proclamation taking possession and control of the American Railway Express Company system of transportation, but this step was for technical reasons and the relations between the Director General and the express company as the agent of the Government continued to be defined in accordance with the contract of June 26, 1918. That is, the express company, a private corporation, continued throughout Federal Control to operate the express business as the agent of the Director General.

The express business, involving an extremely high proportion of labor cost, was subject in a very pronounced way to the labor difficulties which were characteristic of all forms of business enterprise during the War. It was very greatly affected by the scarcity of labor and the extraordinary labor turn-over and by the increases in wages to express employees. These wages had been strikingly low before the War and by reason of the war levels of other wages had to be brought up to a point where they represented a very heavy increase in the cost of conducting the business.

On February 1, 1914, the Interstate Commerce Commission had put into effect an extremely low basis of express rates, so low that the net operating income was virtually wiped out for that year. A moderate increase in small package rates was accordingly authorized by the Commission in 1915 so that the situation was improved for 1915 and greatly improved for 1916. The war conditions prevailing in 1917, however, placed the express business in a very critical situation. An aggregate net operating income of over \$10,500,000 in

1916 dropped to an operating deficit of nearly \$200,000 in 1917. On application of the express companies the Interstate Commerce Commission approved a 10 per cent increase in rates, pointing out that the companies were subject to the conditions operating adversely upon the railroad companies and in addition were hampered by the fact that the war emergency had caused the shipment of articles by express theretofore moved by freight and for the handling of which the express companies were not adequately equipped; and that the lack of facilities to handle the unexpected and unprecedented volume of traffic had resulted in serious congestion, and that operating revenues were insufficient to meet operating expenses. This, of course, meant that the express companies were at that time in much more serious condition than were the railroad companies, because the latter, generally speaking, were earning substantially more than their operating expenses, though by no means enough to give them satisfactory credit. This application for increased rates had been applied for in December, 1917, but the increase could not become effective until July 15, 1918, just fifteen days after the merged express company above described had taken charge of the express business, and a few weeks after the Director General had increased railroad freight rates by about 25 per cent and railroad passenger rates by an average of about 20 per cent.

The readjustments in wages of express employees, however, speedily absorbed all and more than all of the increased revenues accruing to the express company, estimated to be between \$10,000,000 and \$12,000,000. Accordingly the Director General submitted to the Interstate Commerce Commission a plan for a further increase in certain of the express rates, the principal increase being in the territory north of the Ohio and Potomac Rivers, and east of the Mississippi River, where the express rates had been relatively the lowest. On October 26, 1918, the Commission approved this plan and it was ordered by the Railroad Administration's General Order No. 56, effective January 1, 1919. This increase amounted to about 8 per cent on the express business as a whole.

This increase turned out to be insufficient to meet the labor and other costs of the express company after paying 50.25 per cent of the revenues to the Director General. Nevertheless the complications and delays incident to putting increased express rates into effect were great, the end of Federal Control was rapidly approaching and it

was impossible to assume that the extreme difficulties were other than temporary. The Railroad Administration decided, for reasons explained in the chapter on Rates, not to make further increase in railroad rates. The Railroad Administration, therefore, made no further increase in express rates, nor did the express company make application therefor.

In consequence of these conditions, the Government had to make good a deficit of about \$36,000,000 arising under the contract with the express company, while the express company itself received no return on its capital stock.

Promptly upon the completion of Federal Control the express company applied to the Interstate Commerce Commission for an increase in rates averaging about 25 per cent for the entire country, and while this case was under consideration and just before the Commission had decided it the United States Railroad Labor Board awarded an increase of wages to the express company employees amounting approximately to \$44,000,000 a year. The express company made a supplemental application for an additional increase in rates to cover the increase in wages awarded by the Labor Board. The Interstate Commerce Commission permitted an increase of 12½ per cent effective on interstate business on September 1, 1920, and another of 13½ per cent effective on interstate business on October 13, 1920.

After the end of Federal Control the American Railway Express Company accepted the provisions of Section 209 (i) of the Transportation Act, 1920, and thereby the contract between that Company and the Director General of Railroads remained in effect during the guaranty period in so far as the same constituted a guaranty on the part of the United States to the express company against a deficit in operating income.

After the end of the guaranty period the American Railway Express Company negotiated contracts with nearly all the railroad companies and continued to handle the great bulk of the express business.

CHAPTER XI

MAINTENANCE

ONE of the Government's essential functions was to maintain adequately the railroad properties of which it had possession,—and this both to enable it to handle the traffic safely and promptly and to comply with its maintenance obligations to the owners.

The Government maintained the properties in condition to handle the war traffic as well as the post-war traffic in a manner comparing favorably, to say the least, with the prior handling of traffic under private control. On that point there is no necessity for enlargement. But the question as to the Government's maintenance obligations to the owners and the manner of fulfillment calls for more detailed statement and analysis.

Contract Provisions.

At the time the President issued his Proclamation of December 26, 1917, taking possession and control of the railroads, he issued an explanatory statement indicating that he would ask Congress to guarantee that "the railway properties will be maintained during the period of Federal Control in as good repair and as complete equipment as when taken over by the Government."

The Federal Control Act of March 21, 1918, provided that the agreement the President was authorized to make with each carrier whose railroad was taken over should contain "adequate and appropriate provisions for the maintenance, repair, renewals and depreciation of the property" and "for such accounting and adjustments of charges and payments, both during and at the end of Federal Control as may be requisite in order that the property of each carrier may be returned to it in substantially as good repair and in substantially as complete equipment as it was in at the beginning of Federal Control." (Section 1.)

In formulating the contract provisions it became apparent to the Director General's advisers that it would be a hopeless undertaking to arrive at a correct estimate of the condition of the physical properties, including rolling stock, of all the railroad companies as of the date of taking them over, and to employ such a basis as the con-

trolling test for ascertaining how much maintenance should be placed upon all these properties during Federal Control. The properties had been taken over suddenly, on a day's notice, in the midst of, and on account of, pressing war necessities, and in a state of congestion in many parts of the country, leading to repairs being long overdue, especially as to rolling stock. Various railroad officers in the east had avowed that, in the fall of 1917, on account of inadequate rates and unfavorable conditions as to labor, considerable maintenance had been deferred and the physical condition of the properties had been losing ground and was lower than it ought to be. It, of course, had been impossible to measure what was the physical condition of each and every structure and every section of every track, and every piece of rolling stock on the date of being taken over. An attempt to test the Government's obligation by the actual physical condition of all the properties when taken over would have led to endless dispute. Any opinion offered on that subject could have been placed in doubt by some opposing opinion.

It also became obvious that the expenditures for maintenance were interwoven with the standard return which the carriers were to get by way of compensation or rental. That standard return was to be the average annual net railway operating income for the "test period," that is, the three years ending June 30, 1917. If one carrier during the test period had undermaintained its property, its test period net railway operating income had been thereby increased. If another carrier in the test period had overmaintained its property, its test period net railway operating income had been thereby diminished. If, nevertheless, the same amount of maintenance were expended by the Government on the properties of each of these carriers, it would follow that the carrier which had undermaintained its property would be rewarded and the carrier which had overmaintained its property would be penalized; for, in rental and maintenance together, the improvident carrier would get relatively more than the provident one.

The Government wished to provide a practical accounting method for measuring the obligation as to maintenance, and also to provide a rational corrective against the danger of rewarding the improvident carrier and penalizing the provident carrier. Therefore, the contracts between the Government and the respective railroad companies, while recognizing the test of physical condition as one way

in which the Director General might satisfy his obligations, provided in effect that the Director General should have the option of satisfying his maintenance obligation through annually expending or accounting for, by way of maintenance, an amount equal to the average annual amount expended by the same carrier for the test period. The contracts also provided that due adjustment should be made for difference in cost of materials and labor and difference in amount and use of property. (See the "standard contract" in the appendix to Chapter X, particularly the proviso in paragraph (a) and paragraph (c) of Section 5.) The carriers claimed nevertheless that the contract provision for returning the properties in an actual physical condition as good as that in which they were received was absolute and allowed the Director General no option to employ instead the accounting test. The Government resisted this contention and settlements were finally made on the basis of the accounting test, that is, on the basis of the amount of maintenance shown by the accounts of the carriers to have been put upon their properties during the test period. But while the Government insisted on the principle of the accounting test, it in fact made substantial concessions therefrom, as indicated below in the analysis of the settlements of claims for undermaintenance.

The carriers were thus given a definite obligation on the part of the Government which would have to be satisfied at the end of Federal Control by a money payment to the extent that it was not satisfied by actual expenditures or creation of funds during the period of Federal Control. The contract also contained a restricted and largely unworkable provision purporting to give the Government some remedy in the event it placed on a property for purposes of safe operation more maintenance than was required by its contract obligation.

Personnel in Charge of Maintenance.

The administration of maintenance was in charge of the Division of Operation. Carl R. Gray was Director of this Division in 1918 and W. T. Tyler, who had been Mr. Gray's principal assistant, was Director of this Division after 1918. Both Mr. Gray and Mr. Tyler had had practically lifelong experience in railroad management prior to Federal Control. After Federal Control Mr. Gray became President of the Union Pacific System and Mr. Tyler became Vice-

President of the Northern Pacific Railway Company. The officer in the Division of Operation immediately in charge of maintenance of way and structures was, from September 1, 1918, to June 1, 1919, C. A. Morse, who was Assistant Director, and who had been Chief Engineer of the Chicago, Rock Island & Pacific Railway Company and in an earlier period had been Chief Engineer of the Atchison, Topeka & Santa Fe Railway Company. He returned to the Rock Island when he resigned from the Railroad Administration. From June 1, 1919, until the end of Federal Control, the officer in charge of maintenance of way and structures was A. M. Burt, who was Assistant Director, and who had been Chief Engineer of the Northern Pacific Railway Company. Upon the termination of Federal Control Mr. Burt became Assistant to Vice-President of the Northern Pacific and subsequently Vice-President.

Throughout Federal Control the officer of the Division of Operation in charge of maintenance of equipment was Assistant Director Frank A. McManamy, theretofore Chief Inspector of Locomotives for the Interstate Commerce Commission and since 1923 a member of that Commission.

Policies as to Maintenance.

The Railroad Administration's policy, prior to the Armistice, in the nature of things, was fundamentally different from its attitude thereafter. Up to the Armistice, the Government's primary concern was to see that all available material and labor (despite the scarcity of both), was applied by way of maintenance to get and keep the properties in the best possible condition for handling the war traffic. Because of the scarcity of materials and labor, there was little, if any, danger of overmaintenance in that year, except, perhaps, as to locomotives which in the east were to a large extent put in better condition than at the beginning of Federal Control. But even at the risk of overmaintenance the policy was to put the railroads in the best possible condition to help to win the War.

After the Armistice, however, the responsibility rested upon the Director General to consider, where maintenance was at the point of providing for safe transportation, whether additional maintenance should be placed on the properties, and if so how much, in order to satisfy, but not to exceed, the Government's obligation as to maintenance. As a matter of fact the maintenance expenditures through-

out 1919 and up to the end of Federal Control were exceedingly heavy. As will be shown below more in detail, the Railroad Administration's expenditures closely approximated the contract obligation, despite scarcity of material during a large part of the period of Federal Control and various interruptions of an exceptional character, and despite a peculiarity of the contract which substantially exaggerated the Railroad Administration's obligation for January and February, 1920.

It is desirable, however, to mention the fact that a note of caution appropriately, and indeed inevitably, characterized the policy of the Railroad Administration toward maintenance after the Armistice. The Director General was forced to realize that if Federal Control ended with some shortage of maintenance the railroad companies would have their remedy, but if it ended with overmaintenance the Government would have no substantial remedy at all. The carriers had objected strenuously to giving any right of recovery to the Government in the event of overmaintenance, and the provision on that subject in the contract was, as was strongly emphasized afterwards by Director General Davis in his report of 1924, largely unworkable and illusory. Thus the Government was in a position where it might be compelled to pay the carriers for undermaintenance but could not successfully collect for overmaintenance. Moreover, the Director General was alive to the condition that the actual application of labor and material by way of maintenance was directly in the hands of the regular operating and maintenance officers on the particular railroads and that it was a striking and indeed an admirable characteristic of such officers that they instinctively desired to maintain in the best possible condition the properties in their charge. On this account under private control it was an important function of the superior officers of a railroad corporation to be vigilant in preventing overambitious efforts in the direction of maintenance, and it was an equally important and even more difficult function of the Railroad Administration during Federal Control. Under private control, if there is overmaintenance in one year it can at least be measurably equalized in a subsequent year without serious ultimate loss to the corporation. But if there were overmaintenance at the expense of the Government before the end of Federal Control, there could be no subsequent equalization of that condition for the Government's benefit. These considerations led the Director General in 1919 to give

the Government the benefit of the doubt where maintenance was ample to provide for safety and doubt arose as to whether still more maintenance might not exceed the Government's obligation.¹

The Maintenance of the Various Classes of Property.

As to *way and structures* there had been substantial shortages in the application during 1918 to many of the properties of essential materials such as cross ties, rail and ballast, as compared with the amounts of those materials applied to the properties during the test period. This shortage had been due to inability to get either the necessary materials or the necessary labor during the stress of war. Substantially greater quantities of these materials were applied to the properties in 1919 and more than had been applied during private management in the calendar year 1917. However, taking the railroads as a whole, and not only during 1918 and 1919 but also during January and February, 1920, and viewing maintenance of way and structures as entirely independent of equipment, Federal Control ended with shortages of these basic forms of maintenance for way and structures.

As to *locomotives*, the case was different. Federal Control ended with the locomotives on the average in better condition than they were at the beginning of Federal Control. The percentage of locomotives in or awaiting shop at the end of Federal Control was 17.4 per cent as compared with 18.5 per cent at the beginning of Federal Control, and the basis of this classification was more uniform and accurate at the end of Federal Control than at its beginning. The Railroad Administration, after the end of Federal Control, applied another test as to comparative condition. This test was an inquiry as to how many miles the locomotives ran after the beginning of Federal Control before they had to have classified repairs (that is, more than mere running repairs), and as to how many miles locomotives ran after the end of Federal Control before they had to have classified repairs. By this test it was clearly indicated that sub-

¹ For a more detailed statement of the maintenance policies of the Director General after 1918, see the statement of the writer on January 24, 1922, before the Senate Committee on Interstate Commerce. (Hearings before the Committee on Interstate Commerce, U.S. Senate, 67th Congress, 2nd Session, pursuant to Senate Resolution 23, upon matters relating to revenues and expenses of railroads, pp. 1616-1647.)

stantially more mileage was gotten out of the locomotives after the end of Federal Control in 1920 and before classified repairs were necessary than was gotten out of locomotives after the beginning of Federal Control before classified repairs were necessary.

As to *passenger cars*, they were at the end of Federal Control in good and safe condition, but the unusually heavy passenger traffic throughout Federal Control and the fact that no additional passenger equipment had been obtained, made it impossible to take the usual number of cars out of service for overhauling, so that the general appearance of the cars and the interior finish had probably suffered.²

As to *freight cars*, the situation was far more complex. Locomotives and passenger cars, generally speaking, remained on a single railroad and were repaired at the shops on that railroad, subject, of course, to some exceptions when, by reason of unified control of all the shops, certain locomotives or passenger cars might be sent for repairs to shops on another railroad. But the freight cars were very largely away from the home railroad and were repaired wherever they happened to be.

Before the beginning of Federal Control the pooling of box cars, and to some extent of certain other cars, had been encouraged by the Railroads' War Board. At the beginning of Federal Control freight cars were very widely scattered. By reason of the congested condition of traffic, many freight cars needing repair could not be unloaded and given the necessary repairs even if shop room and repair forces had been available. Freight cars became even more widely scattered during Federal Control, and while the Division of Operation adopted the policy in 1919 of trying to get cars back to their home railroads, the exigencies of traffic and the nation-wide coal strike in the fall prevented the realization of this policy. Under normal conditions, pre-war and post-war, it would be approximately correct to say that, on the average for the railroads as a whole, close to one-third of the freight cars would be away from home lines. But more than half the freight cars were away from the home lines at the beginning of Federal Control and nearly three-fourths were away from the home lines at the end of Federal Control. Therefore, no railroad company knew what was the condition of its own freight cars

² See Chapter XII under "Capital Expenditures" as to reasons why additional passenger cars were not acquired during Federal Control.

at the beginning of Federal Control or what was their condition at its end. After the end of Federal Control the railroads themselves were prevented by various traffic exigencies and the unauthorized strike of switchmen from getting cars back to home roads to the pre-war normal in that respect until after the lapse of many months.

The amount of money expended upon repairs of freight cars during Federal Control was very greatly in excess of the amount expended during the test period, even after making allowance for the differences in wages and in prices of materials. To a substantial extent scarcity of materials during much of Federal Control resulted in there being frequent repairs at large cost without satisfactory permanent results. In substantial part also, cars were unavoidably repaired largely away from the home railroad and hence under more costly conditions than if they had been at home.

At the end of Federal Control the percentage of freight cars listed as "bad orders" (excluding a small number held out of service awaiting corporate authority to retire them from service), was 5.6 per cent, comparing favorably with the 5.2 per cent of "bad order" cars on hand at the beginning of Federal Control. It is believed that the methods of arriving at these percentages were more uniform and accurate at the end of Federal Control than at the beginning.

It is probably fair to conclude, however, taking everything into consideration, that the condition of freight cars at the end of Federal Control was not as good as at the beginning, although the deficiency in this regard was made the subject of a great deal of exaggeration, due to the fact that the extreme cases were stressed to the point where they gave a fictitious aspect to the general situation. It is also probable that between the end of Federal Control and the time cars then away from home got back home, months later, these cars suffered substantial deterioration on the lines of other carriers.

Amounts Paid in Settlement of Claims for Undermaintenance.

After the end of Federal Control the railroad companies presented very heavy claims for alleged undermaintenance of their properties. These claims aggregated \$678,000,000 for both way and structures and equipment, but they were settled for \$203,000,000. Since the total amount expended for maintenance of way and structures and equipment during Federal Control was \$4,075,000,000, it follows that the claims presented by the railroads indicated a defi-

ciency of more than 16 per cent in maintenance, but that these claims were settled by the Government for an amount indicating a deficiency of less than 5 per cent.

The net amount allowed by the Government in settlement for claims for undermaintenance was divided as follows:

Maintenance of way and structures	\$164,000,000
Maintenance of equipment	39,000,000
Total	\$203,000,000 ³

The amounts expended by the Railroad Administration for maintenance during Federal Control, for Class I roads only, were divided as follows:

Maintenance of way and structures	\$1,534,000,000
Maintenance of equipment	2,541,000,000
Total	\$4,075,000,000

Thus the deficiency indicated by the Government's settlement was less than 11 per cent as to maintenance of way and structures and less than 2 per cent as to equipment.⁴

A peculiar feature of the actual working out of the Government's contract obligation for maintenance during Federal Control grew out of the fact that the Government, after holding the railroads for

³ As to way and structures, the Government's accounting test showed undermaintenance of about \$115,000,000 on those properties showing undermaintenance according to that test, and overmaintenance of about \$16,000,000 on those properties showing overmaintenance. Yet, the Government allowed about \$164,400,000 for undermaintenance and collected only about \$700,000 for overmaintenance. As to equipment, the Government's accounting test showed overmaintenance of about \$295,000,000 and undermaintenance of about \$19,000,000. Yet, the Government allowed \$58,000,000 for undermaintenance and collected only about \$19,000,000 for overmaintenance.

⁴ James C. Davis, Director General of Railroads, set forth in his Annual Report to the President for the year 1924 a final statement of the work of the Railroad Administration as to adjustments of claims of carriers whose property was taken over and operated by the Government during Federal Control. This report is an illuminating study of the extremely able work done by Mr. Davis in liquidating Federal Control and it discusses at length the questions arising as to undermaintenance and overmaintenance of the railroad properties during Federal Control.

the two full years of 1918 and 1919, held them for the two additional months of January and February, 1920, in order to give Congress an opportunity to complete its new legislation. These two months were normally the two months of the year when expenditures for maintenance were the lowest, particularly maintenance of way and structures. In the test period the average maintenance expenditures for January and February were 16.3 per cent as to equipment and 13.8 per cent as to way and structures of the average annual expenditures for those two maintenance accounts respectively. Yet under the Government's contract it had to account for maintenance for those two months on the basis of one-sixth of the annual average test period maintenance or $16 \frac{2}{3}$ per cent each for equipment and for way and structures. Taking into consideration the increase in prices and wages, this made the Railroad Administration's obligation for January and February, 1920, approximately \$23,000,000 for way and structures and \$4,000,000 for equipment in excess of what that obligation would have been if the Railroad Administration had been liable only for the amount of maintenance normally put upon the railroads during those two months of the year. It is well to remember this excess obligation, totaling \$27,000,000, in considering the fact that the Director General eventually paid approximately \$202,500,000⁵ for undermaintenance during Federal Control. If he could have settled on the basis of a normal amount of maintenance for January and February, 1920, the basis for computing the liability would have been substantially less. If (as was contemplated from May to November, 1919) Federal Control could have ended on December 31, 1919, instead of being continued during the months of January and February, 1920, to meet the needs of Congress, the liability for maintenance would have been decidedly reduced.

*The Misconception That the Railroads Were Returned
"in a Broken-down Condition."*

One of the most striking instances of the peculiar psychology accompanying Federal Control was the vigorously asserted and readily accepted fiction that the Government had returned the rail-

⁵ This figure overstates the undermaintenance of railroads because it includes also overmaintenance of other transportation lines, such as steamship lines, sleeping car lines, *et cetera*.

roads in a physically broken-down condition, due to an utter failure to give the properties anything approaching adequate maintenance. The foregoing outline shows the lack of merit in this notion, which for the time being seemed to be gladly believed by many who were looking for things to criticize in government intervention in business.

The observations of the Regional Directors have a bearing on this widely circulated idea of a broken-down condition. The seven regions of the Railroad Administration were in charge of seven Regional Directors who were experienced railroad men holding eminent positions both before and since the War. These gentlemen had occasion in their Annual Reports to the Director General for 1918 and 1919 to comment on the matter of maintenance. They recognized the existence of shortages of cross ties, rail and ballast, but emphasized that nevertheless the railroads in their respective regions had been well maintained. Illustrative excerpts from their reports are in the appendix to this chapter. If the railroads had been in a physically broken-down condition, the language used by the Regional Directors in reporting as to the condition of maintenance would have constituted a grave misrepresentation and it would have been impossible for men of their standing and sense of responsibility to have made any such statements.

Another interesting item of history is that, beginning in the month of August, 1920, shortly before the settlement of the very serious unauthorized switchmen's strike, which began after the end of Federal Control, the railroads of the country were confronted with the necessity of moving the largest volume of traffic that had ever been offered for movement, substantially exceeding even the traffic of 1917, 1918 or in October of 1919. They moved this traffic with success and with deserved credit. Such movement would have been impossible if the railroads had been in a broken-down condition upon their return by the Government only five months before.

Many of the Railroads Were Below Normal as to Maintenance at the Beginning of Federal Control.

The discussion of the condition of the railroads at the end of Federal Control has frequently proceeded on the idea that when the Government took over the railroads in 1917 they were in an ideal condition of maintenance, and that any defects in maintenance observable after the end of Federal Control could be unquestionably

charged to defects in government management. This assumption of ideal condition at the beginning of Federal Control was unfounded. The railroads at that time had already felt the damaging effects of the War. They had been going through an extremely difficult period of rapidly increasing operating costs, growing scarcity of labor, recurring losses of their skilled laborers, disquieting increase in the turnover of labor, and conditions of congestion, militating against adequate maintenance, especially of equipment, and all this in the face of inadequate operating revenues, and the unwillingness on the part of the Interstate Commerce Commission to make any commensurate increase in rates. These conditions were placed graphically before the Interstate Commerce Commission by executives of eastern railroads in November, 1917, in a proceeding in which increased rates were sought. The testimony of these executives not only stressed the increasing operating burdens, but made express reference to the deterioration in the maintenance of the properties.⁶ When the Railroad Administration took control, it found both locomotives and cars below a fair standard of maintenance in the regions where the war traffic was principally concentrated, and there was evidence of some deferred maintenance as to way and structures. This fact of a subnormal state of maintenance at least in important portions of the country at the beginning of Federal Control should not be overlooked.

In conclusion it may be said that the Railroad Administration on the average maintained the railroad properties during Federal Control up to a point which, despite shortage of essential materials, came very close to the maintenance required by the contracts with the railroad companies. This maintenance was ample to provide for safe and effective transportation and to leave the railroads in condition for the transportation of unprecedented traffic after the end of Federal Control. Since the contracts with the railroad companies deprived the Government of any effective claim for overmaintenance, it exercised a commendable caution in the post-war period for the purpose of avoiding overmaintenance. Notwithstanding these necessary precautions, the average annual maintenance physically

⁶ See extracts from this testimony in the appendix to this chapter. See also, in this appendix, extract from Report for Division of Operation for 1918, commenting upon condition of equipment at beginning of Federal Control.

applied during Federal Control exceeded the maintenance in 1917 under private control and approximated closely to the contract obligations without interfering with requirements of safety. The notion of a "broken-down" condition of the railroad properties at the end of Federal Control never had any foundation and has been clearly disproved by subsequent events and analyses.

CHAPTER XII

CAPITAL EXPENDITURES, FINANCE AND ACCOUNTING

Capital Expenditures.

THE administration of the railroads in this country involves, as one of its most important phases, the matter of capital expenditures. The country has developed and continues to develop with such rapidity that there has been and is constant necessity to expend large sums upon the railroads and their rolling stock in order to enlarge their capacity and improve their efficiency so as to keep abreast of the increasing business of the country and the increasingly exacting demands in the matter of railroad service.

Even before the War it had been necessary for Class I railroads to expend several hundred million dollars a year for this purpose. Such expenditures for the three years ending June 30, 1914, had averaged \$542,000,000. In the following two and one-half years the expenditures per year were considerably less, due to financial limitations. But for the calendar year 1917 these expenditures amounted to over \$570,000,000. That is, even with the dollar at its pre-war purchasing value, the railroads were under the necessity of expending in the improvement and extension of their properties new capital each year tending to approximate \$600,000,000. This annual requirement was about two-thirds of the rental they were to receive annually from the Government for the use of their properties during Federal Control.

One of the serious obstacles in the way of the railroads performing their necessary war service during 1917 was that unfavorable transportation rates and increasing expense and other difficulties had partially disabled them from raising the new capital necessary to improve and extend their facilities so as to make up for several years of insufficient capital expenditures and so as to cope effectively with the transportation demands growing out of the War. This was strikingly true as to terminal tracks, shops, locomotives and freight cars. One of the motives impelling the Government to take over the railroads was to enlarge their capacity for service by making greater capital

expenditures than the railroads could make in the situation in which they found themselves at the end of 1917.

At the outset of its tasks, therefore, the Railroad Administration had to deal with this question of capital expenditures, both those already in progress and those which ought to be undertaken. There were, of course, large programs of capital expenditure in active progress at the commencement of Federal Control. Each railroad company had naturally designed its program with reference to its own separate needs and prospects and without reference to operation with all other railroad systems in the country combined, for war purposes, into a single system. A part of the problem of the Railroad Administration, therefore, was to decide and control the extent to which the programs already in process of execution ought to be suspended or carried forward.

In dealing with these matters the Railroad Administration, in order to aid the general governmental war policies, had to minimize as much as possible the absorption of materials, labor and money, all of which fell far short of the war needs therefor. For the time being, the Railroad Administration had to proceed upon the general theory that the Government would have to furnish the necessary money for capital expenditures in course and in prospect, although, generally speaking, it could charge such expenditures against the railroads and look to them for eventual reimbursement, since such expenditures were, with some exceptions, for their permanent benefit.

At the beginning of Federal Control instructions were issued to continue work on additions and betterments already under way until an opportunity could be had for more detailed consideration under new conditions.

On February 2, 1918, the railroads were requested to send in budgets of improvements immediately required to increase capacity and efficiency and to promote safety in operations. They were advised,—in determining (1) what they should report as necessary in the way of additional improvements and also (2) what work already entered upon should be suspended,—to be guided by the principle that no new capital and no labor and material should be absorbed except what was absolutely necessary to meet the present and prospective war needs, and that the necessity of particular projects should be tested not by their necessity from the standpoint of the particular railroad, but from the standpoint of being needed not-

withstanding the fact that all railroad facilities under the Government's control were now available for common use.

On March 12, 1918, the Division of Capital Expenditures was created to deal with these matters. Its organization is shown in the footnote.¹

The reports received and considered by this Division, as a result of the inquiry of February 2, 1918, showed that, despite the limitations prescribed by the inquiry, the estimates of the railroads for absolutely necessary capital expenditures aggregated \$1,329,000,000. The Division of Capital Expenditures reduced this amount to \$975,000,000. This figure included work carried over from the preceding year. Subsequent authorizations were given during the year 1918 so that on December 31, 1918, the improvements definitely authorized amounted to \$1,279,000,000. This amount was divided as follows:

Additions and betterments to roadway and structures	\$573,000,000
Equipment	659,000,000
Extensions, branches and other lines	47,000,000
Total	\$1,279,000,000

The guiding principle in authorizing these capital expenditures was that the first consideration should be *safety* in operations and the second *increased capacity* where that was needed; and that any improvement not required for these purposes should, generally

¹ Robert S. Lovett was appointed Director thereof. Prior to this appointment Judge Lovett had been Chairman of the Union Pacific System and had also been for some time a member of the War Industries Board and Chairman of the Priorities Committee and also Agent of the President in the administration of the Priority in Transportation Act of August 10, 1917. At the end of 1918 Judge Lovett resigned as Director of the Division of Capital Expenditures and again became Chairman of the Union Pacific System. On January 16, 1919, Thomas C. Powell was appointed Director of the Division of Capital Expenditures. Prior thereto Mr. Powell had been Vice-President of the Southern Railway Co., and had been a member of the Priorities Committee of the War Industries Board and also the Railroad Administration's Manager of Inland Traffic and Special Representative with the War Industries Board. Upon the termination of Mr. Powell's work as Director of the Division of Capital Expenditures at the end of Federal Control, he became Vice-President of the Erie Railroad Co., and subsequently became, and is now, the President of the Chicago and Eastern Illinois Railroad Company.

speaking, be deferred until after the War. In consequence, improvements designed to effect permanent economies, but not necessary for safety or the immediate increasing of capacity, were postponed until after the War. This policy was a necessary incident to the workings of war in disrupting the continuity of normal peace-time policies.²

In accordance with the policy just outlined, the Railroad Administration in 1918 ordered 100,000 freight cars and 1,930 locomotives, but no passenger cars, since it was able to handle the heavy increase in passenger movement with the existing passenger equipment.

In addition to this equipment ordered by the Railroad Administration the railroads received a substantial amount of equipment which had been ordered in 1917, but the delivery of which had been delayed on account of diversion of material for war purposes.

The equipment added during Federal Control from all sources was as follows:

	<i>Locomotives</i>	<i>Freight Cars</i>	<i>Passenger Cars</i>
Purchased by Director General	2,130 ³	100,000	...
Ordered direct by Carriers (chiefly in 1917)	1,902	42,857	820
Built in Railroad Shops	394	16,199	71
Total	4,426	159,056	891

But while in 1918 expenditures were authorized to the extent of \$1,279,000,000, only \$592,000,000 could be actually expended. It is a general condition that any large appropriation for railroad improvements in a given year can only be partially expended in that year, due to the normal lapse of time required for completing large projects, coupled with delays and interruptions which practically always occur. In 1918 in addition to these usual factors, there was the special factor that it was impracticable, in the face of the other

² After Federal Control, the railroad companies then had to plan and make many important improvements for purposes of effecting labor saving and other economies. That they have done this work wisely has been shown in the great increase in efficiency of labor and in economy generally since the War compared with the pre-war operations of the railroad companies.

³ Includes 200 Russian locomotives leased from War Department in 1918 and eventually sold to the railroads.

war demands, to get all the materials and all the labor required. But while the program for improvements to enlarge the capacity of the railroads fell so far short of being completely carried into effect, the meeting of the transportation needs of the War was nevertheless accomplished through successful coördination of the conflicting demands for priority in transportation service and through the successful coördination of railroad facilities and operations, as has been explained in Chapter IV.

The signing of the Armistice on November 11, 1918, naturally caused an important change in the Railroad Administration's policy as to capital expenditures. On December 10, 1918, the Director of the Division of Capital Expenditures advised the Regional Directors that as to new work not already authorized it was inexpedient to grant authority unless the improvement was imperatively necessary or the railroad corporation itself was willing to finance it. Inquiry was made at the same time as to whether the same policy ought not to lead to the cancellation or postponement of authorizations already granted where the work had not been started, or, if started, was in such shape that it could be suspended without loss. The inquiry made it clear, however, that it did not contemplate a policy of drastic retrenchment of work already authorized.

Early in 1919 the Railroad Administration developed the definite policy that in view of the probable very early termination of Federal Control—although there was complete uncertainty as to the date—and in view of the resulting impossibility of planning with confidence as to future improvements, and the great scarcity of funds (a matter explained in connection with the Railroad Administration's problems of finance), the making of additions and betterments to roadway and structures, should be restricted to those necessary for (a) safe operation, (b) handling current volumes of traffic and (c) the completion of those larger projects already entered upon which could not be economically discontinued. As to equipment, the necessary result of the situation was that the Railroad Administration ordered none after 1918.

The Railroad Administration, however, was willing to order and carry out after 1918 the making of any improvements which the railroad companies desired and were willing to finance. But the railroad companies availed themselves of this willingness to a very slight extent.

The very restricted policy which the Railroad Administration thus felt compelled to adopt after 1918 was greatly intensified by the Senate's failure on March 4, 1919, to pass the appropriation for the Railroad Administration, a matter discussed in connection with the Railroad Administration's problems of finance. On account of this failure, it was necessary for the Railroad Administration to effect further drastic reduction of capital expenditures. The Division of Capital Expenditures suspended all improvements previously authorized except where it was necessary to continue the work to insure safety, or where the project had been so far advanced that to stop the work would be more expensive than to continue it, or where the railroad companies were willing to furnish the funds. While Congress in June, 1919, passed an appropriation for the Railroad Administration, this was not sufficient to meet its needs, so that the extremely limited improvement policy, forced, first, by the character of the tenure of Federal Control at that time, and second, by the failure of Congress to appropriate sufficient funds, had to be continued to the end of Federal Control. These conditions were intensified by the fact that by June, 1919, it was clearly understood that Federal Control would end on the following December 31, so that only about six months remained, a time too short to make and effectuate plans for improvements even if there had been no other difficulties.

Throughout 1919 and until the end of Federal Control the Division of Capital Expenditures undertook to keep in close touch with the officers of the carrier corporations so as to make sure, as far as practicable, that even the limited capital expenditures entered upon were agreeable to the respective corporations and that the cost thereof would be acknowledged as obligations on their part.

Nearly all betterments to existing railroad property involve an operating charge as well as a charge to capital account. The apportionment of the total cost between these two accounts called for careful attention on the part of the Division of Capital Expenditures and the Accounting Division and for frequent argument between the local accounting officers representing respectively the Railroad Administration and the railroad corporations. This grew out of the divergence in interest arising from the fact that the Railroad Administration had to bear the operating charge and the railroad corporations the capital charge. Toward the end of Federal Control,

when the Railroad Administration could get no benefit from the improvement, it in some cases required the railroad corporation to bear the operating charge.

In the matter of equipment, the carriers quite generally throughout 1919 were resisting the allocation to them of the equipment which had been ordered by the Railroad Administration in 1918. Each of a large number of carriers argued earnestly that it was in no need of such equipment and therefore should not be required to accept it or pay for it. This attitude of opposition to any idea of additional equipment being provided for the carriers still further confirmed the Railroad Administration in its decision to order no equipment after 1918.⁴

As a result of the inability in 1918 to carry into execution the very large budget authorized for additions, betterments and new equipment, and of the inability after 1918 either to authorize an extensive budget or to carry out what was authorized, the actual capital expenditures for the entire period of Federal Control were \$1,200,000,000 or at the rate of \$550,000,000 per year. In the six years preceding Federal Control capital expenditures for the railroad companies averaged about \$460,000,000 per year, and in the six years 1921 to 1926, both inclusive, capital expenditures averaged \$590,000,000 per year.⁵

It is of interest to note that of the \$1,200,000,000 of capital expenditures during the period of Federal Control the carrier corporations furnished approximately \$50,000,000, principally for equipment.

The Division of Capital Expenditures in its contacts with the various carrier corporations found that there was great variety of

⁴ For a time after the expiration of Federal Control there was a disposition in railroad quarters to criticize the Railroad Administration for not ordering more freight cars. But the conditions outlined in this chapter were conclusive against larger orders by the Railroad Administration. See Chapter VII for resistance offered by the railroad companies to accepting cars which were ordered.

⁵ The expenditures for equipment ordered directly by the Railroad Administration (the "allocated" equipment) in most cases were not reported to the Interstate Commerce Commission by the individual carriers until 1920, so that the statistics of capital expenditures for 1918 and 1919 published by the Interstate Commerce Commission are somewhat understated.

method in dealing with their capital expenditures. Some companies pursued a well-defined course in preparing a budget within their resources and taking timely steps to finance the projects upon which they entered. Others prepared only a partial budget and left much latitude to local officials, with the result that large sums were expended before the matter of financing was appropriately dealt with. Others appeared to prepare no budget and make no adequate provision for financing. The Division of Capital Expenditures, employing the accounting rules prescribed by the Interstate Commerce Commission as a foundation, adopted the best practices of the conservatively managed railroads under private control and endeavored to encourage the introduction of those practices as a standard throughout the country in the hope that they might serve as a useful precedent, and stimulate, to a degree more general than was the case before the War, active watchfulness in connection with authorizations for additions, betterments, road extensions and the purchase of equipment, and the closer and more prompt accounting for expenditures made therefor. A number of railroads have continued these methods since Federal Control.

Finance.

One of the purposes of Federal Control of railroads was to enable the railroad companies to cope with financial problems which, on account of war conditions, had become too difficult for many of them to meet in a satisfactory way. Bonds were maturing and had to be paid off or refunded in a money market which was preëmpted by the Government for war purposes. Money had to be raised in the same money market for additions and betterments which the railroad companies had already authorized and which were in process of construction and which had to be paid for as the work proceeded, and in addition money had to be raised for further new additions and betterments which ought to be authorized to enable the corporations to enlarge their capacity to handle the war business to the best advantage. Money must also be found to pay for the increasing cost of labor and of materials and supplies necessary for current operation. It was also necessary to raise money to pay current interest on funded debt, and it was highly important to raise money to pay current dividends. Along with increased operating costs the carriers were suffer-

ing because of their inability to get increased rates. The sum of all these factors made the cash situation of the railroad companies as a whole extremely difficult at the beginning of Federal Control. At that time it was a serious question whether the total cash and cash assets available in the treasuries of the railroad companies were sufficient to meet the immediately pressing demands for cash for the purposes above outlined. While some of the railroad companies had a sufficiently strong cash position to enable them on January 1, 1918, to meet all cash demands then existing and immediately in prospect, this was far from being generally true.

The Railroad Administration's financial problems were much broader than they would have been if the Administration had been able to start on January 1, 1918, free from any connection with the then existing necessities of the carrier corporations in respect of their pending commitments. If such severance had been both possible and desirable, the Railroad Administration would simply have had to operate the railroads and at stated times account for the rentals, leaving the carrier corporations themselves to find the cash to take care of their own debts. This, however, was not the theory underlying the Government's taking possession of control of the railroads. An important part of that theory was to help the financial situation. Therefore, as a practical matter, on the very day that Federal Control began, it immediately became the concern of the Government to see that the cash was forthcoming to enable the carrier corporations to pay their unpaid bills, to pay their interest and dividends, and to pay at maturity the bonds falling due from time to time.

These tasks were far from simple. At the outset, the Railroad Administration had access to no funds whatever except those then in the treasuries of the railroad companies. No appropriation was made by Congress until March 21, 1918. Ordinarily, one would assume that in taking over a going concern like the railroad industry of the country there would be current cash earnings from operation which would be available for meeting pressing cash demands of the character above referred to. But the Railroad Administration was confronted with the difficulty that the first two months of its operation of the railroads, January and February, were normally the poorest earning months in the year. Moreover, in 1918, January and February were far worse than usual because of the serious con-

gestion of traffic when Federal Control began, the unprecedented severity of the weather and the great increase in expenses without increase in rates. In the average January and February of the "test period" (the three years ending June 30, 1917), the railroads had net railway operating income of \$102,000,000, but in January and February of 1918 the railroads had railway operating income of only \$8,954,000 and this was true even though there were no charges into those months for wage increases by the Railroad Administration, since no such increases were established until the following May.

But for the Government's taking control of the railroads at the beginning of 1918, many of those railroads, with liabilities exceeding current assets at the end of December, 1917, would have found themselves so situated that they could not meet their obligations, and this condition would have been greatly intensified and extended by the extraordinarily bad conditions in January and February, 1918. Federal Control averted numerous financial disasters among the railroads, but this merely emphasized the exceptional difficulty of the financial problems which confronted the Railroad Administration.

As Congress provided no financial assistance for the Railroad Administration until March 21, 1918, the ability of the different railroads to pay their current expenses was dependent on the situation of the respective railroad treasuries. Since a great many were in extremely unsatisfactory condition at the beginning of Federal Control and the cash results of the first two months' operations were so extremely poor, the payment of any bills had to be deferred.

The extremely unsatisfactory cash position at the beginning of Federal Control is shown by the fact that current liabilities were in excess of current assets (excluding materials and supplies), on over half of the Class I railroads, and on final accounting after the end of Federal Control it was found that the Railroad Administration, in addition to advancing money to the corporations for refunding purposes and for capital expenditures, had paid for the railroad companies other corporate liabilities to the extent of \$112,162,000 in excess of its receipts of corporate assets convertible into cash.

To deal with these problems and the others incident to the financial aspects of the Railroad Administration, a financial division was created on February 9, 1918, which, at the outset, was combined with the purchasing division under the title of Division of Finance

and Purchasing. In March, 1919, it was divided into a Division of Finance and a Division of Purchases.⁶

The financial division in addition to dealing with the general financial matters above outlined, and as incident thereto, was charged with the responsibility of approving, when in the public interest, the issue of bonds and other obligations by carrier corporations for corporate purposes such as refunding existing indebtedness and raising new capital. The division also had the responsibility of determining what dividends might be paid, if any, in excess of the regular dividends paid during the three years ending June 30, 1917, or in cases where no dividends or no regular dividends were paid in that period. These powers were vested in the President by the Federal Control Act (Sections 5 and 7). It was also necessary for the financial division to determine what payments or advances should be made to the carrier corporations to enable them to meet their commitments including their regular dividends, it being the policy of the Railroad Administration to avoid the suspension of interest payments or of ordinary dividends wherever possible. It was for the financial division to determine whether amounts paid to the carrier corporations should be treated merely as payments of compensation or as advances which the carrier corporations promised to repay. Because of the heavy expenditures for the account of the carriers especially for capital expenditures, which the corporations would be obligated to repay, there was extreme doubt as to the extent to which, if at all, particular carriers might be entitled to collect compensation from the

⁶ John Skelton Williams, Comptroller of the Currency, was appointed Director of the Division of Finance and Purchasing. He associated with him an Advisory Committee on Finance, consisting of Franklin Q. Brown, Chairman, Festus J. Wade, Frederic W. Scott and James N. Wallace. In March, 1919, Mr. Williams resigned as Director of this division and instead two new divisions were organized, that of Finance and that of Purchases. Swagar Sherley, former Chairman of the Appropriations Committee of the House of Representatives, was then appointed Director of the Division of Finance and held that position until the fall of 1920, when he resigned to resume the practice of the law. He was assisted by a Finance Committee, consisting of John Skelton Williams, Chairman, Franklin Q. Brown and Frederic W. Scott. C. B. Eddy was Associate Director of the Division of Finance. D. C. Porteous, who was Secretary of the Seaboard Air Line Railroad Company prior to Federal Control, was Assistant Director of the Division of Finance throughout Federal Control and afterwards became Director of the Division under Director General Davis.

Government, and therefore as a matter of prudence the amounts advanced to such carriers were to a large extent treated for the time being as advances to be repaid rather than as payments of compensation. The financial division also had to determine what, if any, securities of the corporation would be purchased by the Railroad Administration and at what prices.

After the appropriation made by the Act of March 21, 1918, the Railroad Administration in various instances in 1918 advanced the cash necessary to enable carrier corporations to pay maturing obligations. But even in 1918 it was the purpose of the financial division to require the carrier corporations to do their own refunding at rates of interest which the division was willing to approve as reasonable. At times there were serious differences of opinion between the division on the one hand and the carrier corporations and their bankers on the other as to what were reasonable terms for such refinancing. But these matters were finally adjusted so that the refinancing could be accomplished.

Reference has been made above to the extremely difficult cash situation in the first months of 1918. This was materially improved when the appropriation of \$500,000,000 became available in March, 1918, but the situation was never easy. Beginning in April, 1918, the financial division was able, to a considerable extent, to mobilize the cash resources of the Railroad Administration by transferring cash from one railroad to another so as better to equalize the cash supply. A great deal of cash was needed for the benefit of the corporations in connection with refunding where the Railroad Administration aided the carrier corporations and in connection with capital expenditures and betterments. There were also heavy demands for cash for the benefit of the Administration in connection with the extremely unfavorable operations in the early months of the year before the increases in transportation rates could be made. Moreover, in the summer of 1918 the Railroad Administration had to pay employees approximately \$200,000,000 for increases in wages for the months January to May, both inclusive. During the rest of the year the increased transportation rates were a distinct help to the operating situation although operating expenses steadily increased. The increased operating revenues, however, were not sufficient to enable the Railroad Administration to take care of the demands for cash

to meet corporate liabilities including expenditures for additions, betterments and new equipment.

As a consequence, at the end of 1918 the cash situation was decidedly critical. The Administration had had to pay in the way of compensation, loans or advances to carrier corporations, investments in carrier securities, corporate liabilities in excess of assets collected, additions and betterments and equipment more than \$1,200,000,000. The entire net railway operating income for 1918 together with all of the appropriation made for the Railroad Administration by Congress in 1918 aggregated only \$1,216,233,000. There is shown as an appendix to this chapter a consolidated statement of receipts and expenditures for the twelve months ended December 31, 1918. This statement shows cash on hand December 31, 1918, of \$322,548,000 but most of this had to be left in the hands of the Federal Treasurers on the respective railroads to meet their daily working needs and exclusive of such working funds the Railroad Administration had on hand only \$78,000,000 in cash.

The situation was rapidly becoming more serious because of the alarming slump in business which was so reducing the revenues from operation that they were barely able to pay operating expenses with no provision for paying the rentals for the railroads, or for necessary capital expenditures for equipment and additions and betterments.

As is explained in Chapter XV on Rates, the general situation was not susceptible of correction through increasing the rates because to a large extent the needs for cash grew out of payments on account of the carriers for capital purposes which could not be offset by rate increases—the latter naturally relating only to current operations—and, moreover, it was commercially impracticable to impose rate increases at a time of a heavy slump in business.

Thus at the outset of 1919 the Railroad Administration was in serious need of a very large appropriation to admit of its meeting promptly its bills which already toward the end of 1918 had begun to accumulate because of shortage of cash, and to meet its obligations for additions and betterments being constructed and for equipment being delivered, as well as to meet the needs of the railroad companies for payments on the rentals due them. Therefore, in January, 1919, the Director General applied to Congress for an appropriation of \$750,000,000. The House passed the appropria-

tion and it was favorably reported in the Senate by the Committee on Appropriations, but as a result of a filibuster the Senate adjourned for the term at noon on March 4, 1919, without the passage of this appropriation.

The failure of this appropriation under these circumstances was a remarkable instance of a necessary and non-partisan measure failing for purely partisan reasons. There was a general conviction in public life, regardless of party alignments, that it was necessary for the Government to retain control of the railroads until Congress could complete its legislation. There was general understanding that in the absence of a prompt and adequate appropriation to meet the indispensable requirements of the situation, the interests of business men and their employees and of railroad bondholders and stockholders might be put in jeopardy. There was general appreciation of the view that it was contrary to the public interest to encourage still further discontinuance of industrial activity and to promote further increase in unemployment, thereby adding to the general business depression. It was known that the failure of this appropriation might involve serious pecuniary embarrassment to equipment manufacturing concerns, coal mines and other industries supplying materials and supplies to the railroads, construction concerns engaged in railroad work, *et cetera*, and to railroad bondholders and stockholders. But regardless of these considerations the appropriation was allowed to fail, and this was done deliberately for purposes of partisan politics.

Drastic steps had to be taken at once to meet the acute situation thus brought about. To help meet the crisis, the War Department promptly paid the Railroad Administration \$100,000,000 on account of transportation services which had been rendered but had not been vouchered according to the ordinary technical procedure. The Navy Department paid \$10,000,000 in a similar manner. The War Finance Corporation loaned the Railroad Administration \$50,000,000, taking as collateral securities which carrier corporations had pledged with the Railroad Administration for loans made. Thus by these methods \$160,000,000 was added to the \$14,500,000 that the Central Treasury had been able to retain as a result of refraining from the prompt payment of bills.

The Pennsylvania Railroad Company, being anxious to prevent serious embarrassment to industries along its railroad, such as coal

mines supplying materials and supplies to the railroad, came forward and paid the Railroad Administration \$22,000,000 in cash on account of expenditures made by the Director General for additions and betterments on the Pennsylvania Railroad and this money was used by the Federal treasurers on the Pennsylvania lines in paying their most pressing bills.

But these expedients did not begin to produce enough cash to meet the urgent demands of the various railroad companies for advances on account of compensation to enable them to pay their interest and taxes, corporate expenses and in some instances dividends. To meet this situation the Railroad Administration issued certificates of indebtedness which had no maturity, but which were 5 per cent obligations of the Director General not subject to being set off under the contracts with the railroad corporations. Prominent bankers as well as the War Finance Corporation were induced to come to the help of the carrier corporations by lending them money upon their obligations with these certificates as collateral. Since the carrier corporations might have to pay more than 5 per cent interest on the money thus borrowed, the Railroad Administration agreed to reimburse the railroad corporations to the extent of what they might have to pay in excess of 5 per cent, but not exceeding 1 per cent additional. The Railroad Administration thus issued \$193,272,970 of its certificates to carrier corporations.

There was also extreme need for cash on the part of manufacturers of equipment which was being finished and delivered. The Railroad Administration issued similar certificates of indebtedness to the equipment companies to an amount of \$91,645,275.

The Railroad Administration, as is pointed out above in connection with capital expenditures, imposed further drastic curtailment of additions and betterments work.

Federal treasurers were required to defer the payment of bills as far as practicable.

As a result of all these expedients involving very great inconvenience and concern to business interests in many parts of the country, the crisis was tided over until Congress, which met in extra session in May, 1919, passed an appropriation of \$750,000,000 for the Railroad Administration. In view of the increasing commitments which had necessarily developed between January and May, the Director General applied to the extra session of Congress in May

for an appropriation of \$1,200,000,000. Congress cut the appropriation down to \$750,000,000, which was not enough to meet the cash situation as it existed at the time the appropriation was made, but even the \$750,000,000 went far to relieve the extreme and injurious tension and interference with normal business activities which had existed ever since the failure of the appropriation through the non-action of the Senate on March 4, 1919.

As soon as the Congressional appropriation referred to became available, the Division of Finance took steps to pay off the certificates of indebtedness. By full coöperation with the banking interests, \$245,000,000 of certificates, out of a total of \$285,000,000, were paid in a single day without appreciable disturbance of money balances in any part of the country.

No further appropriation was made by Congress for the aid of the Railroad Administration until March 1, 1920, on which date Federal Control of railroads terminated. Although the cash situation during the summer and early fall of 1919 was somewhat improved by the large increase in traffic following the recovery from the business depression of the winter and spring of 1919, the Railroad Administration was not able at any time during 1919 to enjoy a comfortable cash situation, because all that it had received in its two appropriations aggregating \$1,250,000,000 had not sufficed to enable it to meet all the outlays it had made (1) to take care of bills outstanding at the beginning of Federal Control, (2) to pay for additions and betterments, including equipment, (3) to make advances to pay off maturing debts of some of the railroads and (4) to make sufficient payments or advances on rentals to enable the railroad companies to pay their interest and dividends, *et cetera*.

As is explained in the chapter relating to Purchases, the Railroad Administration in 1918 ordered 1930 locomotives and 100,000 freight cars. These were to be allocated to the various railroad companies. The railroad companies were unable to reimburse the Railroad Administration therefor and could not afford to have the cost thereof deducted from the compensation due by the Government as rental for the railroads. The Railroad Administration therefore had to supply the cash necessary to pay for this equipment. It was important for the Administration to have some marketable security which under favorable conditions the Government would be able to sell. During 1919 therefore, the Division of Finance, in coöperation

with the Division of Purchases and the Division of Law, worked out a plan for the issue of equipment trust obligations by the carriers to cover the equipment in question. After the end of Federal Control the Railroad Administration under Director General Davis sold practically all of these equipment trust obligations and thereby reimbursed the Treasury to the extent of approximately \$346,000,000 for expenditures made during the course of Federal Control on account of such equipment.

On account of the exceptionally critical situation of the New York, New Haven & Hartford Railroad Company (referred to below as the New Haven), at the beginning of Federal Control, and on account of the extent to which its securities were interwoven in the general financial fabric in New England, a policy of special assistance to the New Haven was followed in order to help protect the general financial situation of the country. A New Haven note issue of \$43,964,000 was due April 1, 1918, just before the Third Liberty Loan drive. The advice of bankers was that it was impossible to sell New Haven notes on the open market on any terms at that time. The outstanding and maturing notes were so widely held that their non-payment would have had a disastrous effect on the general financial situation. Therefore, the Railroad Administration lent the New Haven the \$43,964,000, taking the same collateral which had been put up to secure the maturing notes. Subsequently, various additional amounts were loaned the New Haven to fund its current indebtedness to the Government, to pay for its additions and betterments, and for other readjustments, with the result that the total amount of New Haven notes held by the Director General December 31, 1924, was \$64,000,000.⁷ The Railroad Administration had also held \$4,438,500 of New Haven equipment trust notes, but these were sold by the Government prior to December 31, 1924.

At the beginning of Federal Control the financial situation of the

⁷ The situation of the New Haven has been stated at times in such terms as to be open to the construction that this indebtedness of \$64,000,000 was due to the fact of Federal Control of Railroads and would never have come into existence but for that control. But at the beginning of Federal Control, 70 per cent of that indebtedness already existed and threatened to precipitate a receivership of the New Haven properties unless the Government came to the New Haven's assistance by taking over the debt. Nor is there anything to show that the New Haven would have been able to avert the equivalent of the other 30 per cent of this indebtedness in the absence of Federal Control.

Boston & Maine Railroad was very serious and its properties were in the hands of a receiver. The system was made up largely of leased lines and there was danger that it would be unable to pay the rentals therefor and that the system would thereby disintegrate. Its securities were widely held in New England. In the summer of 1918 the Director General had to spend as a war measure considerable sums for additions and betterments to the Boston & Maine system on owned and leased lines for which it would be impossible to get proper security without reorganizing the property. In order to facilitate this reorganization and avoid a crisis which would be detrimental to the general financial situation and interfere with the success of the Liberty Loan drives, the Director General agreed in September, 1918, to take \$19,879,000 of ten-year 6 per cent bonds secured by a mortgage on the Boston & Maine Railroad property and on the property of the leased lines. The reorganization was delayed by the failure of the Senate to pass the Railroad Administration's appropriation bill in March, 1919, but was eventually accomplished with the Director General's aid as stated. The Railroad Administration subsequently took additional bonds to secure expenditures for additions and betterments on the Boston & Maine property and on December 31, 1924, held mortgage bonds of the Boston & Maine in the amount of \$26,980,000. The Railroad Administration had also held Boston & Maine equipment trust notes, on account of allocated equipment as above explained, in the amount of \$6,813,000, but these notes were sold by the Government prior to December 31, 1924.

Thus the Railroad Administration aided the two principal railroad companies of New England to the extent of taking over their indebtedness in amounts aggregating initially over \$63,000,000 and eventually the Railroad Administration held the obligations of these two companies to the extent of \$90,000,000 in addition to over \$10,000,000 of equipment trust notes, which latter, however, were sold by the Government prior to December 31, 1924.

The Director of the Division of Finance and the Comptroller gave much attention to the financial and accounting problems which would arise in connection with the transfer of the railroads back to private control and to the legislative provisions which would be desirable to facilitate that transfer. They were active in advising as to the appropriate legislation for this purpose (particularly Sections 202

and 207 of the Transportation Act, 1920), so as to empower the Railroad Administration to adjust and liquidate all questions arising out of Federal Control and so as to provide adequate funds for that purpose. These provisions enabled the Railroad Administration after the end of Federal Control to make expeditious and favorable settlements. The absence of similar power touching the liquidation of many other war activities occasioned a great deal of litigation and delay. In anticipation of the coming into effect of the Transportation Act, 1920, the Director of the Division of Finance and the Comptroller had to take the following measures:

1. The amount of working capital that would be required by each carrier to conduct its operations after the end of Federal Control on February 29, 1920, was determined so that money could be advanced by the Director General for this purpose until receipts from current operations were sufficient to meet the requirements.

2. Provision had to be made for the disposition of cash received by collection of the assets, and the methods to be followed in the payment of the liabilities, of the Railroad Administration subsequent to February 29, 1920. (General Order No. 68.)

3. Provision also had to be made for the accounting to be followed in the segregation of interests as of February 29, 1920 (General Orders Nos. 66 and 67), and the taking of inventories of materials and supplies as of that date. (General Order No. 68.)

Fire Insurance.

In line with the established policy of the Government to insure its own risks, the Railroad Administration decided to become its own insurer and the administration of its policy in this regard was confided to the financial division. On April 30, 1918, the railroad managements were instructed not to renew any expiring fire insurance policies on property in Federal Control and not to take out any new fire insurance policies upon such property. Existing policies were not disturbed.

Under private control the practice varied greatly as to fire insurance. Some carriers were their own insurers virtually without exception. Other carriers made it a point to carry fire insurance in the case of very large and concentrated risks. Others carried fire insurance to an even larger extent. It was estimated that at the beginning of Federal Control the carriers as a whole were carrying

slightly over \$2,000,000,000 of fire insurance, but nearly all of this insurance had expired by the beginning of the year 1919.

There was organized in the financial division a Fire Loss and Protection Section which, utilizing the then existing fire prevention and insurance organizations which had already been established by some of the carriers, developed a more comprehensive fire prevention service.⁸

It appeared that there was considerable room for improvement in the fire prevention activities of some of the railroads. Extensive inspections of fire prevention apparatus and methods were conducted, and efforts were made to enlist the interest of the Regional Directors and Federal Managers in greater attention to these matters. It was felt that encouraging progress had been made in this direction, although the duration of Federal Control was too short to admit of any convincing demonstration. It is believed, however, that this work gave a decided impetus to more general and more systematic fire prevention methods by the railroad companies after the end of Federal Control. In the matter of direct saving in the amount of insurance premiums as compared with the amount of losses it was estimated that the Railroad Administration, by carrying its own fire risk, saved in 1918 not less than \$1,346,970, and in 1919 not less than \$2,311,878.

On the contrary, it was found that it was more economical for the Railroad Administration to insure against marine losses in the marine insurance companies and therefore the practice of carrying marine insurance was reinstated with economical results in 1919.

Accounting.

Federal Control of railroads gave rise to new and difficult accounting problems of a character not usually present in railroad accounting, for there had to be an accounting between the *owner*

⁸ The Fire Loss and Protection Section was organized by the appointment of Charles M. Rambo (formerly Superintendent and Secretary of the Mutual Fire Marine and Inland Insurance Co., Philadelphia), as Manager. An Advisory Committee was created consisting of Theodore H. Price, Chairman, R. M. Bissell (President of the Hartford Fire Insurance Co., Hartford, and Chairman of the National Conservation Committee and the National Board of Fire Underwriters), Charles E. Matther of Philadelphia, D. R. McClellan of Chicago and A. M. Schoen (Chief Engineer of the Southeastern Underwriters Association of Atlanta, Georgia).

of the railroad and the *operator* of the railroad occupying very complicated relations to each other. In order to handle these matters the Director General created February 9, 1918, the Division of Public Service and Accounting. In the early part of 1919 this Division was divided into a Division of Accounts and a Division of Public Services.⁹

As far as current operations were concerned the Federal accounting officers on each railroad proceeded as the accounting officers had done under private control to account for operating revenues and operating expenses in accordance with the rules of the Interstate Commerce Commission. But, in addition, the local Federal accounting officers had to set up a different and distinct set of books to record the operations of the Railroad Administration and to show the necessary segregation of interests as of January 1, 1918.

The local accounting departments were also called upon to prepare a large amount of statistical data required by the Central Administration in connection with the analysis of Federal operating results. They also had to make a careful check of the inventories at the beginning and at the end of Federal Control, including the pricing of thousands of items of materials and supplies. Furthermore, they had to assemble a great mass of statistics bearing upon the rates of pay and prices of materials employed in maintenance during the test period ending June 30, 1917, and during the period of Federal Control, so as to enable the Director General to apply the accounting test of his maintenance obligation under the contracts with the carrier corporations. In addition they had to carry on the usual routine of accounting for current railroad operations. All in all, the local accounting officers were subjected to extreme burden

⁹ Charles A. Prouty, former member of the Interstate Commerce Commission and at the beginning of Federal Control the Director of that Commission's Bureau of Valuation, was appointed February 9, 1918, the Director of the Railroad Administration's Division of Public Service and Accounting. When that Division was divided in 1919, Mr. Prouty remained as Director of the Division of Accounts, Max Thelen becoming Director of the Division of Public Service. In January, 1920, Mr. Prouty resigned as the Director of the Division of Accounts and thereupon accounting matters of the Railroad Administration were placed in charge of George H. Parker as Comptroller. Prior to Federal Control Mr. Parker had been Assistant Comptroller of the Philadelphia & Reading Railroad and after Federal Control became Comptroller of that company.

and strain and they discharged this responsibility in a manner creditable to them and to the railroad accounting profession.

But, along with the increased burdens in the directions above mentioned, the local accounting forces were relieved of considerable accounting work which had been essential when each railroad was separately operated and therefore had to keep accounts with practically every other railroad. Inasmuch as during Federal Control virtually all the railroads (other than the short lines), were operated by the Government, the Railroad Administration took advantage of the opportunity to eliminate many phases of intercompany accounting. For example, accounting for hire of freight cars as between Federal controlled railroads was eliminated (although restored as a convenience to the companies in the last part of Federal Control); the accounting for car repairs was much simplified; when bills between railroads were made, the debtor railroad was made responsible for the correctness of the bill and the creditor railroad was not required to check for clerical errors; the methods of dividing between connecting lines the revenues on through traffic were much simplified; and in the adjustment of interline freight and passenger revenues, the destination road was made responsible for checking the accuracy of the accounting in the interest of all lines over which the shipment or the passenger had moved. In such matters, there was, in the aggregate, a very important relief afforded to the local accounting forces, and this enabled them the better to deal with the new forms of accounting which were the necessary outcome of the distinction which had to be observed during Federal Control between the owners of the railroads and the operator of the railroads.

The principal tasks of the central accounting force itself may be summarized as follows: It had to supervise the work of the local accounting forces and assemble their reports and make consolidated statements thereof. It had to maintain currently for the financial division a complete statement of accounts between the Director General and each corporation whose property was under Federal Control, taking into consideration not only the separation of accounts as made by the local accounting forces, but also all loans and payments on account of compensation made by the financial division. It had to check the expenditures of the locomotive and car builders in connection with the manufacture of locomotives and freight cars purchased directly by the Director General as ex-

plained in Chapter VIII on the Purchase and Custody of Materials and Supplies. It had to prepare accounting data for consideration in connection with the Director General's maintenance obligations under the contracts with the carriers and it had to perform generally the functions of the accounting department of an extensive organization carrying on a great business with extremely complicated contract relationships.

The development of the accounting methods of the Railroad Administration was a matter of evolution and growth. Federal Control came suddenly without any opportunity to discuss or devise in advance the new accounting practices which would have to be established to reflect the relations between the railroad companies and the Government. The complexities of these relationships became more and more apparent especially as the form of the contract between the Director General and the carriers was discussed. As the problem became more clearly defined, the accounting work was developed to cope with it.

The work of the accounting division, and indeed the work of the Railroad Administration in general, was enormously facilitated by the reason of the fact that for many years there had been a standardized system of railroad accounting, prescribed and enforced by the Interstate Commerce Commission. But for this uniform system of accounts, the sudden transfer of the railroads from private control to government control and the adjustment of the relations between the Government and the owners of the railroads would have involved the greatest confusion. The fact that there was a well-established and uniform system of accounting also greatly facilitated the adequate supervision of current railroad operations.

CHAPTER XIII

INLAND WATERWAYS

THE steps taken by the Railroad Administration for the development of transportation on inland waterways were taken pursuant to a widespread sentiment that since so many millions of dollars had been expended by public authority in putting inland waterways in condition for navigation, the Federal Government ought to utilize some of the more promising of those waterways to meet the country's war needs for transportation. The Railroad Administration was regarded as the logical governmental instrumentality for this purpose and there was constant pressure upon it to this end. The prevailing sentiment found expression in the Federal Control Act of March 21, 1918, which authorized the President to make expenditures for the purchase, construction or utilization and operation of boats and other transportation facilities on inland, canal and coastwise waterways. (Section 6.)

One of the functions of the Council of National Defense, established by the Act of August 29, 1916, was to investigate and make recommendations to the President on the utilization of inland waterways. On June 15, 1917, the Council of National Defense appointed a committee on Inland Water Transportation with Major General W. M. Black, Chief of Engineers, U.S.A., as Chairman. One of the concrete results of the work of this committee was the allotment of \$3,860,000 from the funds of the Emergency Fleet Corporation for the construction of 24 steel barges and 4 steel towboats to be used in transporting Illinois coal from St. Louis to St. Paul and iron ore on the return trip downstream to St. Louis.

It was realized, when the Railroad Administration was created, that the taking of steps toward the more effective utilization of inland waterways could be better accomplished by the Railroad Administration than by the Council of National Defense, since the latter's powers were largely advisory. Accordingly, on February 15, 1918, the Inland Water Transportation Committee of the Council of National Defense was dissolved and on February 16, 1918, Director General McAdoo appointed a Committee on Inland Waterways consisting of the following:

Major General W. M. Black, Chief of Engineers, U.S.A., Chairman.

Walter S. Dickey of Kansas City, Mo.

G. A. Tomlinson of Duluth, Minn.

Colonel Charles Keller, Corps of Engineers, U.S.A., Secretary.

At a later date there were added to the committee Calvin Tompkins of New York and M. J. Sanders of New Orleans.

This committee was directed to investigate and report a plan for additional use of internal waterways for economical and expeditious movement of traffic so as to relieve or supplement the railways under existing war conditions, the plan to be confined to those waterways that would effectively afford national relief.¹

Out of the projects recommended by this committee, the Director General acted favorably upon the committee's recommendation for the acquisition and operation of boats on the New York Barge Canal, on the Mississippi River between St. Louis and New Orleans, and on the Warrior River from the Birmingham coal district to Mobile and thence to New Orleans via the Mississippi Sound.

As to the New York Barge Canal, which was owned by the State of New York, but on which only privately operated boats were used, the disappointment as to the resulting adequate private development of fleets was such that the Superintendent of Public Works of the State in his Annual Report for the year 1918 stated that throughout 1917 the State officials had been unremitting in their efforts to bring to the attention of the Federal Government the transportation opportunities offered by the New York canals and had urged that the Federal Government either assume control of the movement of traffic or furnish the necessary floating equipment and divert freight from the congested rail lines to the water route.

As to the Mississippi between St. Louis and New Orleans private operation of boats had been disappointing and in 1917 important interests of New Orleans and St. Louis sought to form a corporation to acquire and operate boats between those two cities. Being unable to secure priority orders for the necessary materials for constructing these boats, these interests urged the Director General to act and they were instrumental in having included in the Federal

¹ Director General's Circular No. 6.

Control Act the provision above mentioned for the utilization and operation of boats on inland and coastwise waterways.

On the Warrior River, likewise, efforts of private operation of boats had not been reassuring, although there was quite a general belief that there was a promising opportunity to transport by that route coal to Mobile and New Orleans, as well as considerable other heavy traffic.

In May, 1918, some 250 men, representing all the important business organizations of the Middle West and Southwest urged upon the Director General the immediate adoption of a governmental policy which would insure waterway operations upon both the Mississippi and the Warrior Rivers.

Each of these three projects which the Director General authorized will be separately referred to. The cost of the equipment constructed or purchased for each of these projects is shown in the appendix to this chapter.

New York Barge Canal.

To correct various confused notions to the contrary which had some circulation in the State of New York during and after Federal Control, it is well to make clear that the New York Barge Canal was never taken over by the Federal Government and hence was never in the possession of or controlled by the Director General of Railroads. That canal was and is a public highway owned and maintained by the State of New York and has always remained in the possession and control of the State. The Railroad Administration used this canal for the passage of boats owned or chartered by it in common with and in the same manner and on the same terms as other operators of canal craft. While in 1918 most, if not all, of the privately owned craft were commandeered by the Government, and rental paid therefor, this was not true in 1919 and the owners of such craft were free to operate as they saw fit and to charge such rates as they saw fit. The general complaint with reference to the canal rates charged by the Railroad Administration on boats operated by it was that they were too high. Privately owned and operated craft were free to charge such lower rates as their owners thought fit.

The Railroad Administration's New York State Barge Canal Section was created April 22, 1918, about three weeks prior to the opening of the navigation season. There was, of course, no oppor-

tunity to provide any equipment except what was already on the canal. The Railroad Administration accordingly leased numerous steamers and barges for the summer and fall of 1918, it being necessary to contract to take the masters of such craft as well as the boats themselves. These boats were regarded as inadequate in character; the arrangements were not satisfactory, and were not renewed after 1918. The operations during 1918 with these chartered vessels were purely provisional and far from satisfactory. Normal canal traffic was seriously interfered with by the War and exceptional delays were incurred at terminals. Efforts were made by the Railroad Administration to encourage the movement of coal by the canal, but the requisite coal unloading machinery was not available along the canal, the receivers of coal did not wish to provide such equipment, and many of them preferred deliveries by rail. Likewise, the owners of grain preferred to ship by rail. Apparently the rail movement was so satisfactory that the grain shippers were not anxious to ship by canal. At the outset the canal rates were made the same as the rail rates. In June, 1918, moderate differentials under the rail rates were established for canal movement, but there was some complaint on the part of shippers that the canal rates ought to be still lower.

The Railroad Administration in May, 1918, ordered 51 steel barges, and in July, 1918, ordered 21 concrete barges. It also purchased during 1918 5 tugs and 3 wooden barges. Practically none of the equipment ordered could be delivered during 1918 and on January 1, 1919, the Railroad Administration had in its possession only 3 of the concrete barges and none of the steel barges. It also had in its possession the 5 tugs and the 3 wooden barges it had purchased.

During the navigation season of 1919 which opened May 15, the Administration had the use of 48 of the steel barges which it had ordered, and a number of the concrete barges varying from 12 to 20. But its position as to power was extremely unsatisfactory. The 5 tugs it owned and a few others (varying from 11 to 9) it leased, did not suffice to provide satisfactory towage even between Buffalo and Troy and it was necessary to contract with outside tugs for towage between Troy and New York. The conclusion was reached that these difficulties could be best eliminated by the provision of 20 self-propelled barges which would provide the necessary towage for all barges between Buffalo and New York and would permit of

getting rid of the tugs owned or leased. These self-propelled barges were ordered at a cost of \$1,739,996, but they could not be delivered until 1920.

Mississippi River between St. Louis and New Orleans.

The Railroad Administration Section for the operation of the Mississippi and Warrior Rivers was established in July, 1918. Satisfactory equipment for immediate operation was not available. The Railroad Administration, however, in order to begin operations, purchased from the Kansas City & Missouri River Company, 2 tugs and 9 barges and leased from the United States War Department until June 1, 1919, 20 steel barges and 2 tugs (which had been in use by the Corps of Engineers for River Improvement), and also chartered a tug from a civilian owner.

Operation was begun on September 28, 1918, but the tugs proved unsatisfactory and inadequate, involving exceptional maintenance and transportation costs, and proving unequal to the performance of the regular weekly service contemplated between St. Louis and New Orleans.

On account of their defective character the actual running time of the tugs was less than 50 per cent of the time in service. It was impossible immediately to bring into existence any plan of rail and river rates, so that the traffic was confined to local river traffic. War conditions interfered with the normal movement of traffic, as, for example, the movement of sugar upstream was diminished by the war zoning of sugar.

Terminals were seriously inadequate. At the end of 1918 the city of St. Louis was engaged in constructing a terminal and negotiations were in progress with the city of New Orleans for terminals at that point. The Railroad Administration had purchased a terminal at East St. Louis from the Kansas City & Missouri Company.

At the end of 1918 the Director General authorized the ordering of 6 large steel tugs and 40 steel barges of 2,000 tons each. By the end of 1919 only 14 of these barges were completed and the balance were expected by June 1, 1920. None of the tugs had been delivered but their deliveries were expected between March and July, 1920.

The establishment of through routes and joint rates by rail and water, involving a very fundamental change in traffic conditions,

proved an extremely tedious matter, and this work had not been completed even by the end of 1919.

In such circumstances the operations on the Mississippi throughout 1918 and 1919 were only partial and provisional.

Warrior River.

On the Warrior River likewise the conditions as to equipment were such that satisfactory operations were not possible within the limited period of Federal Control. Late in the year 1918, the Railroad Administration purchased 3 tugs, 23 wooden barges and 6 self-propelled steel barges, for use between the Birmingham District, Mobile and New Orleans. Because of disuse, this equipment required considerable reconstruction and although a portion of it was in operation by the end of 1918, it was not all in condition for operation until July, 1919.

This equipment not being regarded as adequate, the Director General at the end of 1918 authorized, for the service between the Birmingham District, Mobile and New Orleans, the construction of 4 steel self-propelled cargo barges and 3 steel tugs (none of these 7 boats was delivered until after the end of 1919), and 20 wooden barges (which were completed and in service by the end of 1919).

The service on the Warrior River was begun in December, 1918. But up to December 31, 1919, the full capacity of the equipment which had been purchased (as distinguished from that which had been and was to be constructed on the Government's order) had been available for service less than one-half of the time, due to its defective and inadequate character.

The establishment of rail and river rates had been slow, but had been substantially accomplished.

It is apparent from the foregoing brief account that as to all three of these projects, the New York Barge Canal, the Lower Mississippi and the Warrior River, the entire period of 1918 and 1919 had been taken up in investigation and in efforts to devise and obtain modern equipment of satisfactory character, the period of development had been merely begun, and there was no opportunity for anything approaching normal operation. The difficulties and delay in getting modern equipment into actual operation, the insufficiency of the terminals, the lack of feeders, the war and post-war disturbances of traffic to be transported, the inevitable slowness in

developing a disposition on the part of shippers to change their habits and methods of business by turning from rail transportation, which was functioning with reasonable satisfaction, to a different form of transportation, all contributed to make the entire period of the Railroad Administration's operations on these waterways a period of construction and adaptation with only partial development or operation rather than a period of normal operation after construction had been completed and substantial development had been attained.

In these circumstances there were substantial operating losses in the period of Federal Control. The expenditures during Federal Control and the expenditures subsequently made on account of Federal Control may be analyzed as follows:

Operating deficit January 1, 1918, to February 29, 1920	\$ 2,006,517
Expenditures for fixed improvements and equipment during Federal Control*	13,667,022
Expenditures subsequent to Federal Control for equipment contracted for by Railroad Administration and claims chargeable to Federal Control	2,629,554
Total	\$18,303,093

* For details see Appendix to this chapter.

At the end of Federal Control of railroads, the Transportation Act of 1920 was passed, being approved by the President February 28, 1920. This act provided (Section 201) for the transfer to the Secretary of War, on the termination of Federal Control, of all boats and other transportation facilities on inland, canal and coast-wise waterways, except facilities constituting parts of railroads or transportation systems over which Federal Control was assumed. The Secretary of War was directed to cause such facilities to be operated so that the lines of inland waterways transportation, established by or through the President during Federal Control, should be continued. There were likewise transferred to the Secretary of War any transportation facilities owned by the United States for operation on the Mississippi River above St. Louis. The latter facilities had been developed not by the Railroad Administration but by other governmental agencies. The Federal Control Act declared (Section 500) that it was the policy of Congress to encourage and develop water transportation and made it the duty of

the Secretary of War, with that object in view, to investigate the appropriate types of boats, the subject of water terminals and connections with railroads and to coöperate with municipalities regarding such terminals, and to ascertain whether inland waterways were being utilized to the extent of their capacity, and to disseminate information on all these matters.

As a result of the policy and the requirements thus adopted by Congress, the Secretary of War has continued to cause to be operated the Lower Mississippi and Warrior lines which had their beginning during Federal Control. The barges and other transportation facilities, for use on the New York State Barge Canal and the Hudson River between Buffalo and New York, and owned by the Government as a result of the action of the Railroad Administration, were sold by the Secretary of War pursuant to a Joint Resolution of Congress approved February 27, 1921. Congress provided by the Act of June 3, 1924, for the creation of an Inland Waterways Corporation, the stock to be held at least at the outset by the Government, to carry on the operations of any government-owned inland, canal and coastwise waterways system to the point where the system could be transferred to private operation to the best advantage of the Government. Beginning with the calendar year 1925 the operations of the Lower Mississippi and Warrior River lines have been carried on by this corporation.

NOTE: The matters dealt with in this chapter were handled for the Railroad Administration after September 5, 1918, by the Division of Inland Waterways which was created on that date, Mr. G. A. Tomlinson, formerly President of Duluth, Superior, Globe & Inter-Ocean Steamship Company being appointed Director of the Division.

CHAPTER XIV

LABOR

THE Railroad Administration's handling of labor questions constitutes one of the most important subjects connected with Federal Control. This general topic involves a consideration of the war conditions underlying the railroad labor situation, the developments concerning labor union recognition, the wages, working conditions, discipline and efficiency of the employees, as well as the matter of strikes.

The Situation at the Beginning of Federal Control.

The train and engine men's labor unions, that is, the "Big Four," or the National Brotherhoods of Engineers, Firemen, Conductors and Trainmen respectively, at the beginning of Federal Control, had been recognized and held contracts on practically all the railroads. These contracts fixed wages and defined working conditions and methods of discipline. These train and engine employees numbered about 330,000 or about 19 per cent of the total railroad employees.¹ These Brotherhoods had had their prestige immensely strengthened when in 1916 President Wilson and Congress, to avert a strike, established by the Adamson Act the basic eight-hour day for train and engine service. This had operated to encourage the move toward organization of other classes of railroad labor and had made them feel that they had the sympathy, and could hope for the support, if necessary, of President Wilson and Congress.

The shopcrafts—embracing six classes: machinists, boilermakers, blacksmiths, sheet metal workers, electrical workers and carmen—aggregated about 350,000 employees, or 20 per cent of the total railroad employees. There were six unions for these six classes, all affiliated with the American Federation of Labor. While these unions were not countenanced at all on various important railroads, nevertheless one or more of them had agreements on about 70 per cent

¹ On a few railroads, the switchmen had a separate organization known as the "Switchmen's Union," which had about 8,000 members and was affiliated with the American Federation of Labor, while the Brotherhoods had no such affiliation.

of the mileage of Class I railroads. In 1917 the principal southeastern railroads, including the Atlantic Coast Line, Central of Georgia, Chesapeake & Ohio, Mobile & Ohio, Norfolk & Western, Seaboard Air Line and Southern Railway, were confronted with extensive demands by the shopcrafts unions. Under threat of a strike the controversy was referred to the Secretary of Labor. As a result of his decision these companies entered into a working agreement with these unions fully recognizing them, and standardizing wages, hours and working conditions. The national officers of these unions then inaugurated a national movement against practically all the railroads in the country to compel recognition of standardization of wages, hours and working conditions on all the railroads, and these demands would have been presented to the railroads jointly, on January 1, 1918, but for the intervention of Federal Control.

The telegraphers' union, at the beginning of Federal Control, had recognition and agreements on about 74 per cent of the mileage of Class I railroads.

Organizations of the other classes of employees, clerks, station men, freight-house men, maintenance of way employees, *et cetera*, at the beginning of Federal Control had secured recognition on comparatively few railroads. There were pending active efforts to extend the recognition of these organizations. Illustrative of their movement for further recognition was the strike of clerks in the fall of 1917 on the Atlantic Coast Line previously referred to when President Wilson had intervened on behalf of the strikers and secured their reinstatement.

The demand for workmen at very high wages in the munitions plants, shipbuilding yards and in almost all other industries and the operation of the draft created a marked labor shortage. This, in conjunction with the supposed sympathetic attitude of the Government, gave railroad labor an exceptional sense of power and a feeling that the time was favorable for greatly extended recognition of the railroad labor unions.

The Developments in 1918.

The War, which brought about government control of railroads, also brought about government responsibility to railroad labor as well as to railroad owners. This led to a governmental unification of railroad labor policies during the year 1918 with far-reaching ef-

fects, including general recognition of labor unions, central handling of grievances of employees, substantial increases in wage levels, uniform classification of work throughout the country, nation-wide standardization of wages and hours of work and abolition of piece work.

1918: Expansion of Labor Union Recognition.

The feeling, already strong at the end of 1917, on the part of railroad union labor leaders that the time was favorable for the extensive expansion of the labor unions received a tremendous impetus from the Government's assumption of the possession and control of the railroads. There at once developed a hope on the part of labor leaders, and a fear on the part of railroad managers, that the unions would greatly improve their status in all cases where they were not already fully recognized. Throughout Federal Control, this constituted a distinct cleavage of interest and accounted for a fundamental difference of attitude between railroad union labor leaders and the Railroad Administration's railroad managers (who in general had managed the railroads prior to Federal Control, and were to continue to manage them after the return to private control), the labor leaders applauding and the railroad managers regretting the extension of labor union recognition with its various consequences.

On February 9, 1918, the Director General created the Division of Labor, coördinate in rank with the Division of Transportation (afterwards Division of Operation), and other Divisions of the Railroad Administration, and W. S. Carter, who had for many years been President of the Brotherhood of Locomotive Firemen and Engine men, was appointed Director. This at once gave railroad union labor, in relation to all the railroads, an aspect of equal participation with railroad officers in labor matters, and consequently a strategic position more advanced than any ever before enjoyed.

Mr. Carter appointed as Assistant Directors, J. A. Franklin, previously president of the boilermakers union,² and G. W. W. Hanger, who for several years had been a member of the Federal Board of Mediation for certain classes of railroad labor disputes.

² Mr. Franklin's title was President of the International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America.

Other positions in the Division of Labor were filled largely by officers of labor unions.

The Director General, by his letter of February 14, 1918, to the head of the shopcrafts unions (see appendix to this chapter), established a coöperative basis to increase, at overtime rates, the number of hours worked, regulating the proportion of apprentices and helpers and for recognition of seniority when forces should be reduced. This, it is believed, constituted the first concrete step in the Railroad Administration's dealing with union labor and a distinct advance in the recognition of the shopcraft unions.

By General Order No. 8 (see appendix to this chapter), dated February 21, 1918, it was provided:

No discrimination will be made in the employment, retention, or conditions of employment of employees because of membership or non-membership in labor organizations.

This at once opened the way for the labor organizers to proceed unhampered to organize the employees who were not already organized and the opportunity was promptly and successfully utilized.

As a result, the shopcrafts, the maintenance of way employees, the clerks, station men, freight-house men, *et cetera*, were organized promptly into local unions on the various railroads not already recognizing them and these local organizations became parts of the respective national labor organizations.

It should be made clear, however, that no agreements fixing wages, hours and working conditions in the ordinary sense were made with any classes of employees on any railroads during the year 1918. Instead the Railroad Administration established these matters by its orders. It continued, however, to apply such agreements as existed before Federal Control so far as not superseded by the Railroad Administration's orders.

1918: Dealing with Matters of Discipline—the Boards of Adjustment.

Generally speaking, under private control of railroads, if a labor union had an agreement with a railroad management defining rules and working conditions, provision was made for appeal by an employee from any disciplinary action taken by a local official. As a rule in any such appeal the employee would be represented by the

appropriate officer of his union. The appeal could be carried, if necessary, to the chief executive or chief operating officer of the railroad company. If he was unwilling to modify the action of the local official, it resulted that the employee and his union had to acquiesce in this action unless a strike was called and a better adjustment was thereby obtained. As to all employees in classes of work in respect of which there was no recognized union holding an agreement covering rules and working conditions, the employee had to acquiesce in the discipline administered, subject to possible correction upon application to higher officers of the railroad company.

Controversies relating to the meaning and application of agreements prescribing rules and working conditions were subject to settlement in a manner similar to that above outlined as to disciplinary matters in cases where there were working agreements with unions.

When the Government took control of the railroads, the question arose as to whether all such controversies should continue subject to the final decision of the chief operating officer on the particular railroad. General Order No. 8 provided:

Matters of controversy arising under interpretations of existing wage agreements and other matters not relating to wages and hours will take their usual course, and in the event of inability to reach a settlement will be referred to the Director General.

In pursuance of the general principle so established, the Division of Labor promptly urged the provision of machinery for bringing unsettled controversies (other than wages and hours, which were to be otherwise dealt with) before the Central Administration for disposition.

In the case of the train and engine service an interesting precedent was at hand. On March 19, 1917, a Committee of the Council of National Defense made an award which the railroad companies had agreed to accept, to the effect that the basic eight-hour day as required by the Adamson Act should be put into effect with a "Commission of Eight" to pass upon disputed questions. The Commission thus formed consisted of four management representatives and four labor representatives, one representing each of the four brotherhoods. Following this example, the Railroad Administration created "Railway Board of Adjustment No. 1" of eight members, likewise consisting of four management representatives and four labor rep-

representatives, one for each of the four brotherhoods, to deal with all the controversies, other than those relating to wages and hours, which could not be adjusted on the respective railroads, and also to take over the unfinished work of the Commission of Eight. Some of the members of the Commission of Eight became members of the adjustment board.

This board of adjustment was created by an agreement dated March 22, 1918, between the three Regional Directors and the four Brotherhoods, such agreement being made effective on that date by General Order No. 13. The adjustment board had no jurisdiction over general questions of wage levels, or of the hours of labor, but was given jurisdiction to decide controversies as to interpretations of agreements establishing wages and hours and as to questions of discipline and other personal grievances. All decisions of the board had to be approved by a majority vote, or, failing that, the matter could be referred to the Director General for a final decision.

In May, 1918, Railway Board of Adjustment No. 2 was established in like manner by agreement between the three Regional Directors and the chief executives of the six shopcrafts. This board had twelve members, six representing the shopcrafts and six representing the Regional Directors. In like manner, Railway Board of Adjustment No. 3 was created in November, 1918, to deal with controversies affecting four other organizations, the order of railway telegraphers, the switchmen's union, the brotherhood of railway clerks and the brotherhood of maintenance of way employees and railroad shop laborers.

The terms of these agreements covered only controversies upon railroads where there was an agreement (made of course before Federal Control) between the management and the union representing the particular class of employees. But in practice each board handled controversies for all its classes of labor on all the railroads under Federal Control, because even if on a particular railroad there was no agreement between the management and a union representing the particular class of employees, nevertheless any unsettled controversy could be presented by the appropriate national union representative to the Railroad Administration's Division of Labor, whereupon the appropriate board of adjustment would be asked for its recommendation and this would generally be adopted by the

Railroad Administration through the concurrent action of the Divisions of Labor and Operation.

Between 5,000 and 6,000 cases were dealt with during Federal Control by these three boards. The respective boards were able to reach decisions in all instances in the case of Board No. 1, in all but one instance in the case of Board No. 3, and in all but about nine instances in the case of Board No. 2. Thus only about ten cases had to be carried to the Director General for decision.

There was considerable dissatisfaction on the part of Federal Managers and subordinate railroad officials on the ground that the functioning of these boards tended to impair discipline and efficiency through encouraging the taking of matters of discipline out of the hands of local railroad managers.

The extent to which matters were taken out of the hands of the local managements varied considerably. On some of the railroads, in the case of the train and engine employees, all controversies were settled between the railroad management and the local unions without recourse to the board of adjustment. But generally speaking, numerous cases were carried to the boards of adjustment. The feeling of the managements that discipline was substantially interfered with seemed to be greatest where the labor organizations were newest and where subordinate management officials and local union officials had had the least experience in handling matters of this character on the basis of labor union recognition.

But the boards seemed to be a necessity under Federal Control. It was self-evident that some plan for central control of these controversies was indispensable and no substitute was seriously proposed. The Railroad Administration took the position that the employees no longer served a private interest, but served the Government and the public interest only. Thus the Government could and did make a powerful appeal to the employees to acquiesce patiently in the delay in the settlement of their wage demands and to refrain from striking, and to trust to the Government's sense of justice. But it would have been inconsistent with this principle to leave final decision of controversies to the railroad managers. These managers prior to Federal Control had been officers of the railroad companies and would again become such upon its termination. The employees did not believe that these railroad managers had been born again as a result of Federal Control, but persisted in regarding them as actu-

ated by the same conceptions and motives in labor matters as had prevailed prior to Federal Control. The Government could not consistently say to the employees, "You must not strike because you are working for the Government," and in the same breath say, "But nevertheless you must accept as final every ruling which your old railroad managers, now temporarily speaking with the authority of the Government, may make against you in respect of your grievances."

There was also complaint at times that the management representatives on the boards were not as aggressive and watchful as the labor representatives and therefore acquiesced in decisions which were unjust from the management standpoint. However, the management members of the board had been selected with care by the leading officers of the Division of Operation, and these officers would have brought about the selection of better men if they had been obtainable.

On account of the country-wide standardization of wages, hours and working conditions frequently involving classifications of labor entirely novel on the particular railroad, a very heavy burden was put upon the boards of adjustment to apply these nation-wide provisions to the mass of particular instances calling for interpretation. As a result, simply by reason of the universality of the rules to be applied, the boards made some decisions which seemed extreme in the particular instances, giving individual employees allowances for back pay which could be criticized as excessive. Such situations, however, were chargeable less to the boards of adjustment than to the impossibility of phrasing nation-wide standardizations which would have reasonable application to all the particular instances. While extreme allowances of this character attracted much attention and criticism, they were so exceptional that they did not substantially affect the general level of operating costs.

On the whole these boards performed an indispensable function in a harmonious and creditable manner.

1918: Increases in Wage Levels.

The wage situation was critical at the beginning of Federal Control. The wages in general were unreasonably low, whether tested by the increased cost of living or by what was paid in other lines of industry. It was only the fact of Federal Control that prevented

very extensive wage demands being pressed on the railroads at the beginning of 1918 by practically all classes of railroad employees. Even in the absence of Federal Control, the decision as to wage increases would still have been made by the Government—through President Wilson—for, as shown in Chapter II, the Railroads' War Board in the latter part of 1917 indicated that the railroad companies were themselves placing their interests unreservedly in the hands of President Wilson as to the disposition of all questions of wages and working conditions.

By General Order No. 5 the Director General on January 18, 1918, created a Railroad Wage Commission to investigate the wage situation and report to the Director General. This Commission was composed of

Franklin K. Lane, Secretary of the Interior.

Charles C. McChord, Member of the Interstate Commerce Commission.

J. Harry Covington, Chief Justice of the Supreme Court of the District of Columbia.

William R. Willcox, Ex-member of the New York Public Service Commission, First District.

This commission is referred to below as the Lane Commission.

General Order No. 8 of February 21, 1918, announced that the wages when determined would be adjusted retroactively to January 1, 1918.

The Lane Commission made its report on April 30, 1918. It reported that the popular impression that railroad employees were among the most highly paid workers was unfounded; that 51 per cent of all railroad employees during December, 1917, received \$75 per month or less, and 80 per cent received \$100 per month or less. The Commission adopted the principle of making increases with reference to the increased cost of living, but held that those with the smallest wages should have the greatest percentage increase. It adopted the view that an employee with a salary of \$75 needed an increase of 40 per cent in order to meet the increased cost of living, and that as to wages above \$85 per month the increase should be computed on a scale of diminishing percentages, disappearing at the wage of \$250, for which wage no increase would be allowed. It also held that as to wages under \$85 the increase should start at

\$20 for all wages of \$46 per month and less, and that for wages between \$46 and \$86 per month the increase should be computed on a diminishing percentage beginning at 43 per cent for the lower wage and reaching 40 per cent for the wage of \$85. The percentage increases were applied to the wages as they stood in December, 1915.

The effect may be illustrated by the following examples of monthly wages:

A wage under \$46 was increased by \$20 or 43 or more per cent.

A wage of \$85 was increased by \$34 or 40 per cent.

A wage of \$100 was increased by \$31.75 or 31.75 per cent.

A wage of \$150 was increased by \$24.25 or 16.17 per cent.

A wage of \$200 was increased by \$16.75 or 8.375 per cent.

A wage of \$250 received no increase.

The principle of a percentage increase diminishing as the monthly wage increased turned out to be unfortunate in the extreme. In order that an employee may be reasonably satisfied with his compensation it is necessary that he receive a wage not only that will suffice to meet a certain standard of needs, but that will preserve some appropriate (and usually well-recognized) relationship to the wages of other employees. To a very large extent railroad wages were characterized by fixed differentials, and even where there were no fixed differentials, there were pretty clearly recognized differences in wage levels. These notions of relative wages permeated practically all classes of railroad employees and constituted an essential part of their psychology. The principle employed by the Lane Commission upset virtually every differential or relationship that had come to be accepted among railroad employees. For example, the Commission's report operated to reduce materially the long established differentials of conductors over brakemen and of engineers over firemen and wrought similar changes between other related groups of employees.

The Lane Commission's report also provided that there should be credited against the increase recommended by it any increases which had been received since January 1, 1916, inasmuch as during the intervening period some employees in some parts of the country had obtained substantial increases and others had not. The effect of this principle was that employees who had been most aggressive and successful in obtaining wage increases since January 1, 1916, being

usually those so situated as to take advantage of the strong demand for labor in munitions factories, *et cetera*, found themselves with little or no increase promised under the Lane Commission's report, although they had naturally adjusted their scale of living to the increases they had already received and consequently felt that they needed additional increases as much as anybody else.

The intense competition for labor in view of the demands of other lines of industry and their willingness and ability to pay much higher wages than the railroads was one of the most disturbing conditions in the railroad world. Nevertheless many employees who had opportunities to leave railroad service and get higher wages elsewhere had remained in railroad service, pinning their hopes to the wage increases they supposed they would get when the Lane Commission reported. But the Commission did not feel in position to take this highly competitive element into consideration. The result was that the employees for whom there was the greatest competition, that is, the shop employees, got wage increases which were wholly inadequate to meet the situation (especially since their monthly wage was at so high a figure that the diminishing percentage scale gave them a very low percentage increase). Moreover, many of these shop employees had already obtained substantial increases since January 1, 1916, so that they got little and perhaps no increase under the Commission's report.

Before the management and labor officers in the Railroad Administration had an opportunity to consider and discuss with the Lane Commission the detailed practical application of the principles adopted by it, a copy of the Commission's report inadvertently got into the hands of a reporter and it was published in full in one of the newspapers. Thus there was no opportunity for its practical application to receive consideration by the Divisions of Operation and Labor in the Railroad Administration. In such circumstances it became impossible to revise the report before adopting it, because to do so would have involved cutting down the expectations of those employees to whom the report gave promise of relatively the greatest increases. Naturally, the moment the report was made public through its unauthorized newspaper publication, every employee felt that he had a vested right in at least as much wage increase as the report indicated.

By General Order No. 27 the Director General put in operation

the increase in wages as recommended by the Lane Commission. These wage increases produced tremendous discontent throughout the country and in addition left the situation where the urgent competitive factor was practically not cared for at all. Therefore the General Order, which made these increases, created the Board of Railroad Wages and Working Conditions to cope with the problems which were not settled but intensified by the Lane Commission's report. This Board consisted of six members, three representatives of railroad management selected under the direction of Director Carl R. Gray of the Division of Operation, and three representatives of railroad labor, selected under the direction of Director W. S. Carter of the Division of Labor. It was made the duty of this Board to investigate inequalities as to wages and working conditions as between employees or classes of employees on the railroads, and also inequalities arising from competition with employees in other industries.

The Board of Railroad Wages and Working Conditions had to proceed at once to deal with the extremely pressing question of wages for the shopcrafts. On this matter the Board divided, the management members and the labor members submitting separate recommendations. After consideration of these reports, the Director General, with the concurrence of Directors Gray and Carter of the Divisions of Operation and Labor, promulgated on July 25, 1918, Supplement No. 4 to General Order No. 27, based almost entirely on the recommendations of the management members of the Board. The effect of Supplement No. 4 as to hours and other conditions of employment will be discussed below. In the matter of wage levels, very substantial advances were made, retroactive to January 1, 1918, the basic rate being fixed at 68 cents per hour for machinists, boiler-makers, blacksmiths and certain other classes on all the railroads under Federal Control.

The result of this provision was to standardize wages of shop employees throughout the country on a uniform basis. This was the first move of the Railroad Administration in standardization and uniformity. On the basis of this precedent, nation-wide standardization became the general rule.

As a result of similar action of the Board of Wages and Working Conditions and similar approval by Directors Gray and Carter of the Divisions of Operation and Labor, there were increases in the

rates of pay for clerical forces, including gatemen, baggage employees, callers of crews and various other groups of employees, by virtue of Supplement No. 7, dated September 1, 1918, and increase in the rates of pay for maintenance of way employees by virtue of Supplement No. 8 bearing the same date. By Supplement No. 13, dated December 28, 1918 (this being a substitute for Supplements Nos. 10 and 11), increases were made in the rates of pay for telegraphers, station agents and other like classes.

1918: Provisions for the Working Day and Payment for Overtime.

With respect to hours of service, the conditions varied greatly on the different railroads at the beginning of Federal Control. As to the train and engine employees, the Adamson Act had established in 1916 a basic eight-hour day for train service and before the constitutionality of that act had been settled the basic eight-hour day had also been established by agreement in order to avoid a strike. But this did not limit the number of hours a train or engine employee could work, or provide for any payment of overtime other than mere pro rata additional pay. As to the shopcrafts, the standard working day on railroads which did not recognize the shopcrafts' unions was frequently ten hours with pro rata overtime. On other railroads—some with and some without agreements with the shopcrafts' unions—the standard working day was nine hours, some with pro rata overtime and some with overtime at a higher rate. On many of the roads having working agreements with the shopcrafts' unions, the standard day was eight hours with time and a half for overtime. As to other classes of railroad labor, the standard day was generally ten hours, although occasionally some employees, for example, crossing watchmen, frequently had a standard day of twelve hours.

On this subject the Lane Commission said:

Manifestly, therefore, at this time, when men must be constantly taken from the railroads, as from all other industries, to fill the growing needs of the Nation's Army, hours of labor can not be shortened and thereby a greater number of men be required for railroad work. The Nation cannot, in good faith, call upon the farmers and the miners to work as never before and press themselves to unusual tasks, and at the same time so shorten the hours of railroad men as to call from farm and

mine additional and unskilled men to run the railroads. While the commission is strongly disposed to a standard day in so far as the nature of the service will permit it, its firm judgment consequently is that the existing hours of service in effect on the railroads should be maintained for the period of the war.

Director General McAdoo, although reaching the conclusion that it was not practicable in face of the war demands to reduce the actual hours of labor to eight, incorporated in General Order No. 27 recognition of the principle of the basic eight-hour day, saying:

Nevertheless I am convinced that no further inquiry is needed to demonstrate that the principle of the basic eight-hour day is reasonable and just and that all further contentions about it should be set at rest by a recognition of that principle as a part of this decision.

The Lane Commission also recommended that as to overtime "the existing rules and conditions of payment should not be disturbed during the period of the war," and General Order No. 27 still left the basis of payment of overtime as it had been theretofore, that is, the basis was made pro rata, except when a higher rate was already established by existing agreements or practices.

But by Supplement No. 4 to General Order No. 27, dated July 25, 1918, the Director General, likewise with the concurring advice of Directors Gray and Carter of the Divisions of Operation and Labor, respectively, fixed eight hours as the actual work day for the shopcrafts on all the railroads and provided for the payment of time and a half for all overtime, and for all Sunday work and all work on the principal holidays (seven in all).

By Supplements Nos. 7 and 8 dated September 1, 1918, and relating, generally speaking, to clerical forces and certain station and terminal employees and to maintenance of way forces and shop workers (likewise adopted on the basis of recommendations of the Board of Wages and Working Conditions and with the support of the Divisions of Operation and Labor), the Director General fixed eight hours as the actual day's work, with overtime on pro rata basis for the ninth and tenth hours and with time and a half after the tenth hour.

By Supplement No. 13 dated December 28, 1918, the Director General fixed eight hours as the actual working day for telegraphers and station agents, with time and a half for overtime after eight

hours. This supplement also was made on recommendation of the Board of Wages and Working Conditions, assented to by the Divisions of Operation and Labor.

In all instances eight hours of elapsed time was regarded as a day's work, no provision being made for a "split trick," that is, there was no provision that an employee working, say, four hours at one part of the day and four hours at another part, would get pay only for a day. The principle of all these orders was that the employee was entitled to pay on a particular day for all the hours from the time he first went to work until he was finally discharged for the day. The effect of this principle was particularly felt at small railroad stations where the work could be done in a few hours but on account of train schedules there was a spread of more than eight hours between the first part of the employee's work and the last part.

Thus, during the year 1918 the eight-hour working day with no provision for a "split trick" had been firmly established as to practically all important classes of railroad employees and time and a half for overtime after eight hours had been established for the shopcrafts and for telegraphers and station agents (as to shopcrafts, Sunday and holiday time was all counted as overtime). As to maintenance of way employees and shop laborers and clerical employees, overtime was pro rata for the ninth and tenth hours and at the rate of time and a half after ten hours.

As a result of the various supplements above referred to, a minimum allowance was prescribed of three hours' pay for work outside of established hours for maintenance of way employees, shop workers and clerical and certain other extensive groups of employees.

1918: Provisions for Classification of Work.

Generally speaking, General Order No. 27 did not in itself undertake to modify in any way such classifications of work as had theretofore existed. But Supplement No. 4 of July 25, 1918, made elaborate provision for classification of the work of shop employees. Any student of the labor aspect of Federal Control should note particularly the minute classification which was thus adopted in July, 1918. It represented as to many railroads a splitting up of a particular job among many employees in a manner entirely new to those railroads. On others the classifications fixed by the order approximated

those already in effect. After the end of Federal Control it was frequently claimed that these classifications necessitated employing several men on a job which could be done by one or two. The confused notion seemed to prevail in connection with those claims that the classification had originated in the national agreement which was made with the shopcrafts in 1919. The fact is that these classifications were established in July, 1918, and had been in effect for more than a year before the agreement in question was made.

1918: Promotion and Seniority, Discipline and Grievances.

With regard to clerical forces and maintenance of way employees, telegraphers and station agents, elaborate provisions were made as to discipline and grievances by Supplements Nos. 7, 8 and 13. Likewise, for the clerical forces and maintenance of way employees elaborate provisions were made concerning promotion and seniority by Supplements Nos. 7 and 8. In the annual report for the Division of Labor for 1918 it was indicated that during 1918 rules had been established "providing for the administration of discipline and the maintenance of the seniority principle for more than 1,000,000 employees."

1918: Provisions for Abolishing Piecework.

At the beginning of Federal Control, piecework was utilized in the shops of many but not all of the railroad companies. Nor was the extent of utilization of piecework the same on all the railroads which resorted to it. Very frequently no piecework was attempted in the locomotive shops. It was much more general in the car shops.

Both General Order No. 27 and Supplement No. 4 recognized piecework. But in December, 1918, the conclusion was reached with the concurrence of the Divisions of Operation and Labor that piecework should be eliminated on any railroad where a substantial majority of shopcraft employees were in favor of its elimination. As a result, definite instructions were issued by Director General McAdoo on December 31, 1918, for elimination of piecework under such circumstances "without delay or hesitation" and accordingly the elimination actually took effect in general in the month of January and in the first days of February, 1919.

1918: Standardization of Pay.

General Order No. 27 of May 25, 1918, did not effect any standardization of pay, the per cent increase being merely applied to the prior wage of the individual. But Supplement No. 4, applying to the shopcrafts, effected a nation-wide standardization of pay through prescribing uniform rates for the entire country, the basic rate for the principal classes being 68 cents per hour.

Likewise, Supplements Nos. 7 and 8, dated September 1, 1918, effected standardized minimum rates for the clerical and terminal forces covered thereby, as did Supplement No. 8 of September 1, 1918, for the maintenance of way employees and Supplement No. 13 dated December 28, 1918, for the telegraphers and station agents.

1918: Change as to Status of Women Employees and Special Provisions for Them.

The report of the Lane Commission made no recommendation on the subject, but the Director General by General Order No. 27, of May 25, 1918, adopted the rule that the pay of women, when they do the same class of work as men, should be the same as that of men.

General Order No. 27 not only declared that for the same class of work the pay of women should be the same as that of men, but also that the working conditions of women must be healthful and fitted to their needs and that the laws governing their employment must be observed.

On August 28, 1918, the Women's Service Section was created with Miss Pauline Goldmark as Manager, to give consideration to employment of women on railroads during Federal Control. This step was desirable because employment of women, extensive even before the War, had greatly increased during the War on account of men being drawn away to military service and to other occupations.

The Women's Service Section made careful analyses of the number of women employees and the character of their employment, conducted field investigations as to the suitability of the work and the environment and the amount of night work, and took steps to remove women from unsuitable occupations, improve comfort facilities, reduce dangers incident to night work, and promote generally the welfare of the women employees.

1918: Change in 1918 as to Pay of Colored Firemen, Trainmen and Switchmen.

The report of the Lane Commission made no provision on the matter, but the Director General by General Order No. 27 as amplified by Supplement No. 12 provided that colored men employed as firemen, trainmen and switchmen, should be paid the same rates of wages as were paid white men in the same capacities.

Summary as to Changes Effected in 1918.

The fundamental changes which had been effected or ordered during Federal Control by the end of 1918, may be summarized as follows:

Labor unions had been organized and recognized on practically all the railroads as to practically all classes of railroad labor.

Boards of Adjustment had been established, with equal representation of management and union labor representatives for the decision of all questions of discipline or application of Railroad Administration orders or still existing antecedent agreements when the local managements and local union representatives were unable to agree.

The specific rules for handling grievances and questions of discipline on the various railroads, as well as to regulate promotion and seniority rights, were established for very extensive groups of employees including maintenance of way employees, shop workers, clerical forces, *et cetera*.

The actual eight-hour day had been established as to practically all classes of railroad employees other than train and engine men, who had previously obtained a basic eight-hour day as has been explained in an earlier chapter.

Time and a half for overtime after eight hours, as well as for all time on Sundays and holidays, had been established for the shopcrafts.

Time and a half for overtime after eight hours had been established for telegraphers and station agents.

Pro rata overtime for the ninth and tenth hours and time and a half after ten hours, for maintenance of way employees and clerical employees and certain other extensive groups.

A minute classification of labor had been established as to the shopcrafts.

Standardization of wages on a nation-wide basis had been established for practically all extensive classes except train and engine service.

Increases in wages had been made which, as they stood at the end of the year, represented an increase of about \$784,000,000 per year.

Instructions had been given resulting in the elimination of piecework in all railroad shops.

Women workers were accorded the same pay as men for the same class of work.

Colored firemen, trainmen and switchmen were accorded the same pay as white men in the same positions.

These fundamental and far-reaching changes were in the main regarded at the time as necessary and appropriate on account of the stress of war conditions. This is indicated by the fact that the changes had the support not only of the Division of Labor but of the Division of Operation, the Director of which was C. R. Gray, and the principal Assistant Director of which was W. T. Tyler, both being railroad managers of wide experience. However, three of the features of General Order No. 27 were adopted without recommendation of either the Lane Commission or the Division of Operation and were initiated by the Director General, to wit, the basic eight-hour day, equal pay for women and equal pay for colored firemen, trainmen and switchmen.

The Developments in 1919.

The Railroad Administration's labor policies in 1919 were the outgrowth of the fact that Federal Control was being continued for only a few months to admit of the adoption by Congress of permanent legislation and of the condition that the aftermath of the War was being characterized by rapidly changing economic conditions and by mounting cost of living, which it was generally believed would soon begin to descend. The Director General believed that the best service could be rendered to the general public interest by refraining from further increasing the labor costs of transportation service just as far as practicable, so as to avoid unnecessarily obstructing the hoped-for return to more normal conditions, and so as to avoid also any unnecessary labor adjustments which, if made, would likely be permanent. It was believed that it would be far better for the permanent tribunals established by Congress to deal with these permanent matters. At the same time, the year was one of intense unrest on the part of labor, especially since labor was greatly burdened by the rapidly increasing cost of living. Such further concessions

as the Railroad Administration made in 1919 were on the theory that they were the minimum in amount and the least burdensome in character that could meet the situation in view of the exceptional labor unrest and in view of the extent to which concessions were being made to labor in other lines of industry. An explanation of these matters illustrates the far-reaching disruption of economic conditions brought about as a result of the War.

After the Armistice a fundamental step was taken which had a vital bearing during 1919 upon the earning capacity of the employees. That step was to avoid overtime wherever possible. During 1918 up to the Armistice, although the eight-hour day had been generally established, it was a usual practice to work employees longer hours on account of the pressure of the country's war demands for railroad service. The result was that in 1918, especially after the readjustments in the summer and fall for practically all classes except train and engine service, the employee not only received his basic wage for eight hours but in addition he received pay for substantial overtime, thus greatly increasing his aggregate weekly earnings. But after the Armistice the employees, other than those in train and engine road service (who had to work until their trains reached their termini even though this required more than eight hours), were worked only eight hours and hence lost a great deal of the extra earnings which in 1918 had come from working overtime. This had a pronounced effect upon the domestic budget of the individual employee, and caused him to feel more severely than ever the burden of the steadily increasing cost of living.

1919: Wage Adjustments.

The general readjustments which were entered upon in 1918 to supplement General Order No. 27 had been completed in that year for most of the employees, but the cases of a few classes, though under consideration, had not been disposed of and had to be dealt with in 1919.

The principal readjustment of this class was made for the train and engine employees in April, 1919, by Supplements Nos. 15 and 16 to General Order No. 27. This adjustment gave effect to recommendations made in December, 1918, by the Board of Railroad Wages and Working Conditions. The train and engine employees had been greatly discontented ever since the report of the Lane

Commission had been given effect by General Order No. 27 in May, 1918. Their discontent was increased by seeing further substantial increases in wages and the concession of time and a half for overtime made to the shopcrafts in July, 1918, and to various other extensive classes of labor in the fall of 1918. Nevertheless they had consistently shown a praiseworthy spirit of loyalty, although feeling that their readjustments were being postponed until after action upon the demands for all other important classes. The action taken in behalf of the train and engine employees in April, 1919, accorded treatment comparable with that which had already been shown to the other principal classes. The Director General held in abeyance for further investigation one of their demands, that is, for time and a half for overtime. But he indicated he would later decide this question also, and did so as shown below.

Increases were also made in the wages of police employees, sleeping and parlor car and dining and restaurant and express employees in order to make for them the readjustment already under way in 1918 (see Supplements Nos. 14, 17, 18 and 19 made in April, 1919, to General Order No. 27).

The Director General took the position that these increases made in April, 1919, should be regarded as completing the war cycle of general wage increases, and that no other increases would be made except for necessary equalization or in the light of post-war developments.

While the Director General sought to avoid readjustments as far as practicable, it became evident that the discontent and unrest on the part of railroad labor as well as other labor at that time were so great that it would be impossible to go through the year without any concessions of any sort. He therefore concluded that the course which promised the least burden upon the traffic and business of the country was to refrain from extensive general wage increases and instead, as a means of avoiding such increases, (1) to express the working conditions of the employees in formal agreements to which the labor organizations attached great importance (this involving some further modification of working conditions already established, although most of the fundamental changes in working conditions had been established in 1918), and (2) to make such wage readjustments as seemed to be justified from the standpoint of better equalization. Broadly speaking, this policy underlay all further action of the

Railroad Administration as to wages, working conditions and agreements in regard to them.

The most serious difficulty was with the shopcrafts. In January, 1919, they had demanded substantial increases in wages on account of the increased cost of living and the continued increases in the high wages paid by the Shipping Board and other governmental and non-governmental enterprises. In July, 1919, the members of the Board of Wages and Working Conditions made divided reports on these demands. The labor members recommended a general increase of about 12 cents per hour. The management members recommended no general increase but recommended, for purposes of equalization, an increase of 5 cents per hour to repairers of wooden cars and indicated that unless the cost of living could be speedily brought down, there would be no alternative but to make further increases in wages.

To increase the rates of shop employees 12 cents per hour, and to make corresponding increases for other classes of labor, would have added about \$800,000,000 per year to railroad operating expenses. At that time (the latter days of July), Federal Control was to continue only five months. The Director General believed that he ought not then to make any such increase, especially since he believed it neither feasible nor permissible for the Railroad Administration with its rapidly expiring tenure to initiate general increases in transportation rates to provide additional revenue. He therefore recommended to the President, and the President on August 1, 1919, recommended to the Senate and House Committees on Interstate Commerce, the adoption of legislation providing some permanent machinery for dealing with such demands, and making the decisions of the wage-making machinery mandatory upon the Interstate Commerce Commission so that adequate revenue could be assured to meet any wage increases so made. On account of dissatisfaction with this recommendation for additional legislation, unauthorized strikes developed with great rapidity, and in a few days 200,000 shop employees and engine-house workers were on strike. It became evident that Congress did not desire to take any action, and on August 6 the Senate Committee expressed to the President the opinion that it was within the scope of the authority already conferred upon him to deal with these questions. Thereupon, Congress having declined to avail itself of the opportunity to provide permanent machinery for

dealing with these wage matters, the Director General announced to the shopcrafts that he was prepared to consider their demands on their merits, provided, however, and not until, all the striking employees returned to work. This return to work was accomplished by August 18, but only after train service in many parts of the country had been greatly hampered and repairing of freight cars and locomotives had been greatly delayed.

The Director General declined to make this general increase demanded on account of the increase in the cost of living, but he allowed an increase of 4 cents per hour for all the shopcrafts by way of further equalization with other classes of railroad labor, and undertook to make an agreement to be effective during Federal operation, setting forth the working condition which the Railroad Administration was willing to accord, and the controversies were disposed of in this manner. This adjustment made some additional increases in connection with repairers of wooden cars, car inspectors, certain groups of electrical workers, coach cleaners and a few other groups. The effect of this adjustment was to increase the basic maximum wage rate in the shops from 68 cents to 72 cents per hour which was in contrast with a basic rate of 80 cents being paid in the yards of the Shipping Board when the shopcrafts made their demands, this being one of the principal comparisons stressed by them. Increases over the 80 cents had been announced in July, effective October 1, for certain Pacific Coast shipyards.

Insistent demands for heavy increases in wages were also made by the maintenance of way employees, and the clerks, freight handlers, *et cetera*. The Director General took the position that their wage levels were fairly comparable with those of other classes of employees and could not be increased, but that as a matter of equalization he would sanction time and a half for overtime after eight hours, so as to correspond with the overtime concessions that had been made in 1918 for the shopcrafts and the telegraphers and station agents, and would express in written agreements the working conditions acceptable to the Railroad Administration. These overtime concessions in 1918 had produced great discontent among classes not so favored. For example, only pro rata time for the ninth and tenth hours was paid to groups such as the workers about the shops, the carpenters in the maintenance of way department, and the employees working about the railroad station and these groups were in close contact

and comparison with the more favored classes receiving time and a half after eight hours.

The train and engine employees were also strongly urging further wage increases, as well as disposition of their claim still under consideration for time and a half for overtime. The Director General declined to make any increase in their wage levels generally, but concluded that the train and engine men in slow freight service were relatively underpaid and that this would be corrected by allowing time and a half for overtime in freight train service (*i.e.*, time consumed in excess of eight hours per 100 miles). Such allowance would, generally speaking, benefit the employees in the slow freight service, since the fast freight service was ordinarily made within the basic time of eight hours per hundred miles. Accordingly Supplements Nos. 24 and 25 to General Order No. 27 dated December 15, 1919, established time and a half for overtime in freight train service, but at the same time required the surrender of various arbitrary allowances which had been obtained from private management prior to Federal Control and which involved the railroads in substantial cash outlays.

1919: The "National Agreements."

In the latter part of Federal Control the Railroad Administration entered into agreements for the remainder of Federal Control with the shopcrafts, the maintenance of way employees and the clerks, freight house and station employees, setting forth the working conditions for these classes of employees.

As above indicated, these agreements were parts of concessions made in lieu of wage increases on the belief that they would impose on the transportation service a much less burden than would result if wage increases were made. The agreements were signed in the latter part of 1919 to carry out in good faith commitments made earlier in the year to compose extremely difficult labor situations.

The belief that the making of these national agreements would not involve, taking the country as a whole, relatively great increases in operating costs was due to the fact that the most important elements in these agreements had already become established practice during 1918 for all the railroads, and in substantial part prior to 1918 on many railroads, and that the mere change of expression

from an order to an agreement should add nothing to the operating cost; and that the additional burden arising from such new features as were not already established practice would involve far less additional cost than general wage increases. This will be apparent from a brief summary of prior developments as to shopcrafts.

Prior to Federal Control, considerably over a majority of the railroads, both in number and mileage, provided for seniority of employees, time and a half for overtime, classification of employees and work, payment for time lost waiting or traveling, and limitation of the ratio of apprentices to mechanics; and many of these railroads observed the "five hour call rule" (whereby a man called back after his day's work would be paid for a minimum of five hours).

It was also true that, prior to Federal Control, the national shopcraft unions had extensive recognition, particularly on the railroads in the northwest, southwest and southeast. As a result detailed and thoroughgoing working agreements of the most comprehensive character existed with these unions prior to 1918 on numerous important railroads. For example, in 1917, thirty-one railroads in the southeast had joined with the shopcrafts in an agreement which varied but little in substantial effect from the national agreement made by the Railroad Administration in 1919. Among these railroads were the Mobile & Ohio, Norfolk & Western, Chesapeake & Ohio, Atlantic Coast Line, Seaboard Air Line, Southern Railway and numerous other carriers of importance in the southeast. There were also agreements, having many points of similarity with this southeastern agreement, between the shopcrafts and important railroads in the northwest and in the southwest.

Early in 1918, as above shown, the Railroad Administration virtually recognized the national organizations of the shopcrafts as the organs for dealing with the shop employees on all the railroads.

By Supplement No. 4 to General Order No. 27 made July, 1918, the most vital and costly features of the working conditions for shopcrafts were put into effect for all the railroads under Federal Control and on many railroads revolutionized existing practices, although on many other railroads these features were already in effect prior to Federal Control.

The most important and costly features established by Supplement No. 4, in 1918, where they were not already in existence prior thereto, were the following:

1. The eight-hour day with time and a half for all time after eight hours, and for all time on Sundays and holidays.
2. Standardized wage rates throughout the country at the basic rate of 68 cents per hour for mechanics, machinists and blacksmiths, whereas before the War there had been wide variations in pay for shop employees in different parts of the country.
3. Classification of employees in great detail so that one class of employees would not be permitted to do the work of another class, and so that it might be necessary for several employees to work on a single job which prior thereto could have been done by one employee. One of the results of this provision was that it became necessary in a great many instances to use employees taking the highest basic pay whereas formerly numerous railroads had been able to use helpers or "handy men" at rates of pay much lower.

It was these features that caused the greatest criticism upon return to private control, but the criticism mistakenly attributed these features to the national agreements of 1919, whereas they were established by Supplement No. 4 in July, 1918. After the end of Federal Control the status created by Supplement No. 4 would have been just as much of a factor as the status created by the national agreements. The latter, as well as Supplement No. 4, expired with Federal Control.

Another subject of criticism was the abolition of piecework. But this was eliminated by reason of instructions issued in December, 1918, and the elimination became effective by virtue of these instructions in January or in the first days of February, 1919. The effect in this respect at the end of Federal Control would have been substantially the same whether the national agreement had been made or not.

The making of the national agreements in 1919 therefore did not impose on railroad operation the burden arising from punitive overtime, standardization of pay, classification of labor, extensive elimination of helpers, or elimination of piecework. Nor even as to other rules established by the agreement did it involve an appreciable burden in respect of numerous railroads which had already established corresponding rules by agreement with their employees prior to Federal Control.

The working rules contained in the national agreements were indorsed and recommended as entirely just and reasonable by W. T. Tyler, Director of the Division of Operation, who had been a rail-

road executive prior to Federal Control and again became a railroad executive at the end of Federal Control.

In 1920 the Railroad Labor Board, which was established by the Transportation Act upon the resumption of private control, made an extensive investigation of the rules and working conditions which were recognized in the national agreements with the shopcrafts. That Board reported in favor of eliminating time and a half for necessary Sunday and holiday work, and in favor of each railroad having the opportunity to negotiate anew as to piecework, and approved making the classification of work more elastic in some respects. All three of these features had been established under stress of war conditions in 1918 and would have called for substantially the same correction if the national agreement had not been made. In the main the Labor Board sustained the basic principles of the national agreements as just and reasonable.

Acting on the principle above explained, the Director General agreed in the summer of 1919, with the maintenance of way employees and shop workers and with the clerks, freight-house and station-house employees, to enter into agreements specifying their working conditions. As to these classes, as is above explained, the Director General conceded time and a half for the ninth and tenth hours instead of the preëxisting pro rata overtime for the ninth and tenth hours. Aside from this substantial concession, the estimated cost of which is shown below, and which was intended as an adjustment in lieu of wage increases, it was not believed by the Railroad Administration that the changes in working conditions represented any relatively great addition to operating cost. Supplements to General Order No. 27 which had already gone into effect in 1918 had established important features of the agreements, such as the standardization of pay, the basic eight-hour day, the establishment of seniority in the filling of positions, and the handling of grievances in a standardized way.

The impression appeared to prevail after the end of Federal Control that the changes in rules and working conditions during Federal Control as expressed in the orders made during 1918 and in the agreements made in 1919 were not the outcome of practical considerations or supported by the practical railroad men in the Administration, but were due to political motives.

The fact is, as above stated more fully, that the principal changes in rules and working conditions, and those involving the substantial

additions to operating costs, were made by orders promulgated by the Railroad Administration in 1918, and were made in the light of practical necessities then confronting the Railroad Administration. These orders in each instance had the support of the Division of Operation, whose director was Carl R. Gray, one of the ablest railroad operating officials in the country, who had been the president of several railroad companies prior to the War and who has been the President of the Union Pacific System since the War. The Principal Assistant Director of the Division of Operation in 1918 was W. T. Tyler, an experienced railroad operating officer before the War. He succeeded Mr. Gray as Director of the Division early in 1919 and after Federal Control became the Operating Vice-President of the Northern Pacific. In other words, the most vital changes in the working conditions were made during the War and were the outcome of war necessities and were so recognized at the time and were so supported by the railroad operating officers in the Railroad Administration. Those features of the national agreements which were not mere repetition of the rules and working conditions established by the orders made in 1918 were put into the national agreements on W. T. Tyler's strong indorsement as reasonable and desirable.³ These changes being part of an adjustment of post-war conditions were also chargeable to the War, just as were the much more important changes of 1918.

³ The charge was industriously circulated at one time that the national agreements with the shopcrafts had been formulated exclusively by representatives of the Railroad Administration who had always been and were still union labor men. This was not true. The most significant of the rules in the national agreements had been formulated in substance in 1918 with full participation of experienced railroad officers. As to the negotiation in 1919, Mr. Tyler himself was in control of the negotiations, kept in daily contact with the discussions, and personally approved, vouched for and recommended every rule that went into the agreements. The same was true as to the national agreements with the maintenance of way employees and the clerks. Moreover, as to the two latter agreements, the details of discussion were handled by A. M. Burt, as Mr. Tyler's representative. Mr. Burt prior to Federal Control was an official of the Northern Pacific and after Federal Control resumed connection with the same company. Mr. Tyler selected, as his immediate representative in charge of the details of the discussions concerning the shopcrafts agreement, Frank McManamy who for many years had been a railroad employee and was a union labor man and who for some years had been an official of the Interstate Commerce Commission and who is now a member of that commission.

Amounts of Wage Increases or Adjustments and Comparative Wage Levels.

The estimated annual increases in operating expenses resulting from the wage adjustments made in 1918 and 1919 by the Director General and in 1920 and 1921 by the Railroad Labor Board were estimated as follows:

Wage Increases by Director General and Employees Affected.

<i>Increases in 1918</i>	<i>Effective date</i>	<i>Estimated annual increase in pay roll, chargeable to operating expenses</i>
General Order No. 27 (substantially recommendation of Lane Commission)		
All employees receiving less than \$250 per month	January 1, 1918	\$360,000,000
Supplement No. 4		
Shop employees	January 1, 1918	209,000,000
Supplements Nos. 7 and 8		
Maintenance of way employees and clerks	September 1, 1918	190,000,000
Supplement No. 13		
Agents and operators	October 1, 1918	25,000,000
Total Increases in 1918		<u>\$784,000,000</u>
<i>Increases in 1919</i>		
Supplements Nos. 14, 17 and 18		
Policemen, dining and sleeping car employees	January 1, 1918	8,000,000
Supplements Nos. 15 and 16		
Enginemen and trainmen	January 1, 1919	60,000,000
Increase in pay under equalization adjustment effective May 1, 1919		
Shop employees	May 1, 1919	50,000,000
Time and one-half for overtime		
Enginemen and trainmen in road and freight service	December 1, 1919	38,000,000
Time and one-half for overtime and other adjustments in pay		
Maintenance of way employees }	December 16, 1919 }	25,000,000
Clerks }	January 1, 1920 }	
Total Increases in 1919		<u>\$181,000,000</u>
Total Increases made by Director General		<u>\$965,000,000</u>

*Wage Adjustments by Labor Board in 1920 and 1921**Increase in 1920*

The increase in wages recommended by the Railroad Labor Board in July, 1920, effective May 1, 1920, was estimated by the Interstate Commerce Commission in connection with the rate increases in Ex Parte 74 at

\$618,000,000

Decrease in 1921

The decrease in wages recommended by the Railroad Labor Board in 1921 effective July 1, 1921, was estimated at approximately 2/3 of the 1920 increase or

\$412,000,000

Railroad employee wage levels resulting from these adjustments are shown by the following table:⁴

	<i>Average earnings per hour (exclud- ing officers)</i>	<i>Per cent change over previous level</i>	<i>Index numbers 1915 = 100</i>
Year ended June 30			
1915	\$.261		100
1916	.267	+ 2.3%	102
Year ended December 31			
1916	.276	+ 3.4	106
1917	.313	+13.4	120
December, 1917	.336	+21.7*	129
December, 1918 (Estimated)	.516	+53.5	198
1st Quarter 1920	.588	+13.9	225
1st Quarter 1921	.709	+20.6	272
1st Quarter 1922	.627	-11.6	240

Some of the foregoing dates need to be more clearly identified as follows:

December, 1917, showed the condition at the beginning of Federal Control.

December, 1918, showed it after the wage increases of 1918 had taken effect.

The first quarter of 1920 showed it at the end of Federal Control.

The first quarter of 1921 showed it after the Railroad Labor Board's general wage increase of 1920 had taken effect.

⁴ These statistics were compiled by Bureau of Railway Economics and are based on wage statistics reported by Interstate Commerce Commission except months of December, 1917, and 1918, which were based on records of United States Railroad Administration.

* Increase over 1916.

The first quarter of 1922 showed it after the Railroad Labor Board's general wage reduction of 1921 had taken effect.

Charts showing the wage levels for railroad employees and for employees in other industries are given in the appendix to this chapter.

These charts show that the increases in hourly and weekly earnings of railroad employees were practically the same up to 1919. This was true because there was little change in the average hours worked per week. While the eight-hour day was generally established in 1918, it was not actually effective because the employees worked overtime on account of the war pressure. But in 1919 the eight-hour day became actually effective because most overtime was eliminated with the result that while hourly earnings increased 114 per cent over 1914, weekly earnings increased only 86 per cent. The corresponding increases for manufacturing employees were 115 per cent and 111 per cent, respectively, there having been no such radical change in their actual working hours as had occurred with railroad employees. This cutting down of hours actually worked by railroad employees caused them to feel with especial force the increase in the cost of living.

Strikes.

During the war period ending with the Armistice, there were virtually no strikes on the railroads under Federal Control. The country was at war, the railroad employees were working directly for the Government, their patriotism was successfully appealed to, and they remained at work regardless of great dissatisfaction with the report of the Lane Commission and the impatience arising from time to time on account of the delay involved in passing upon their demands, and despite disappointment, in many instances, at the amounts of their increases as compared with the awards to other classes of railroad employees and as compared with the increases enjoyed by labor in other forms of industry.

There was a small and brief unauthorized strike of shop employees on the Southern Railway at Alexandria, Va., on May 28, 1918, lasting two days, in protest against the terms of General Order No. 27 based on the Lane Commission's report. In the fall of 1918 there were strike threats from various parts of the country on the part of telegraphers dissatisfied with delay in disposing of their demands for wage increases. On November 3, 1918, the general chairmen on

all the southeastern railroads, without authority of the chief executive of the telegraphers' organization, gave notice that a strike would be called. The Director General condemned this action, appealing to the patriotism of the employees, and the chief executive of the organization intervened and the strike was postponed. Decision of these demands was announced by the Director General on November 16, but this produced great dissatisfaction and strikes were again threatened. Further hearings were conducted and an amended decision was announced in Supplement No. 13, on December 28, 1918, retroactive to October 1. This amended decision put an end to the agitation in favor of a strike.

During 1919 there was no "war spirit" to stimulate the employees, the cost of living was increasing rapidly, the earnings of the employees were less because they were losing the overtime they had enjoyed until after the Armistice, the feeling of unrest was everywhere in evidence, agitators and extremists were busy, great disappointment existed at the policy of the Railroad Administration to defer general wage increases until the trend of the cost of living could be better estimated, and in consequence there were numerous sporadic unauthorized strikes.

Nevertheless there was not during 1919 or until the end of Federal Control an authorized strike of railroad employees, that is, with the authority of the labor unions to which the employees belonged.

Whenever the unauthorized strikes took place the Railroad Administration took and maintained the position that the grievance assigned as the cause for the strike would not be considered until the employees returned to work, and that the grievance would then be considered on its merits.

A few of these unauthorized strikes were of such magnitude as to deserve special mention.

In March, 1919, there was an unauthorized strike of clerks on the Nashville, Chattanooga and St. Louis Railway growing out of a demand for the removal of the Federal Auditor. This demand was refused and the strikers, generally speaking, returned to work, the management reinstating them as far as possible.

The unauthorized strike of shop employees in the summer of 1919 has already been referred to.

Another unauthorized strike which assumed substantial proportions involved train and engine employees in California, Nevada and

Arizona. The Pacific Electric Railway Company, a carrier not under Federal Control, had a controversy with certain employees and obtained an injunction against interference of strikers. On this account train and engine service employees on the Southern Pacific Railroad went on strike, not authorized by their organization, because the Southern Pacific under Federal Control continued to interchange traffic with the Pacific Electric. The Railroad Administration took the position that it was operating the Southern Pacific and other railroads as common carriers and that they must continue to perform their common carrier duties including the interchange of traffic with their connections. The Railroad Administration called on the executives of the train and engine brotherhoods to require their members to resume work in accordance with the working agreements which had been made between the brotherhoods and the Southern Pacific under private control and which had continued operative under Federal Control. The labor executives responded promptly and earnestly to this request, but temporarily the strike spread with great rapidity and was felt on various railroads in Southern California, Nevada and Arizona, resulting in tying up traffic and in subjecting many passengers and prospective passengers to great inconvenience. Since the labor executives were unable promptly to get their members back to work, the Director General issued a proclamation (which is in the appendix to this chapter), fixing a date by which the strikers must return to work or lose their positions. He indicated that the Department of Justice would coöperate in prosecuting any interference with the operation of the railroads. The Proclamation was issued with the personal approval and hearty support of the President. The strikers promptly thereafter returned to work, but the strike was an illustration of the extreme tension and unrest existing throughout the country.

There was one class of employees of the Railroad Administration not embraced in the above designation "railroad employees." This was the class of marine workers. Many railroads under Federal Control operated ferry boats, tug boats and car floats as incidents to their railroad business. Such floating equipment and the employees operating the same were under Federal Control. The Railroad Administration also had possession and control of various coastwise steamship lines, and these lines had various classes of employees in the respective ports. These situations produced labor complica-

tions. The employees on the railroad ferries, tugs and car floats were direct employees of the railroads and naturally compared their rates of pay and working conditions on the one hand with those accorded by the Railroad Administration to railroad employees proper, and on the other hand with those established for other marine workers in the same locality, as, for example, employees on privately owned tug boats who were frequently in the same labor unions. In this way marine employees of the Railroad Administration in a particular harbor became involved, from time to time subsequent to the Armistice, in strikes along with other marine employees in the same harbor. This was particularly true as to New York Harbor. These troubles had to be adjusted in the light of the double aspects of the situation. On the one hand it was not practicable to deny to these employees of the Railroad Administration treatment as favorable as that shown strictly railroad employees. On the other hand, it was difficult to get them to accept less than was being accorded to other similar marine workers in the same port.

One of the strikes of harbor employees occurred in New York in January, 1919. This strike involved harbor employees generally, including those working for the railroads. This led to a submission to arbitration. When the arbitrator made his award the harbor employees declined to accept it. Thereafter, at the instance of Director Tyler of the Division of Operation and A. H. Smith, Regional Director for the Eastern Region, the Railroad Administration adjusted the matter with its harbor employees by putting into effect for them a basis of settlement which had been earlier offered to them and which was in line with the principles already being applied for the benefit of other railroad employees.

Efficiency of Railroad Labor.

This was a highly interesting and much discussed topic during and after Federal Control. In more recent years there has been a tendency to compare the improved productivity of railroad labor, say in 1925, with the productivity of such labor in 1919 and to argue that since the increase in efficiency had taken place after the resumption of private control this was not only evidence of much less efficiency during the War but also it was evidence of governmental inefficiency in general. For example, it has been pointed out that the number of ton miles of service per railroad employee in 1925 was

approximately 25 per cent greater than the number of ton miles per railroad employee in 1919. The argument has therefore been expressed or implied that private operation was 25 per cent more efficient than governmental operation.

But parallel with comments of this character there have also been frequent comments on the great increase in industrial efficiency since 1919 or 1920.⁵ Importance has been attached to the greatly increased productivity per employee, and consequently in efficiency, in industrial enterprises in the last few years. Comments as to increase in industrial efficiency have been based at times upon such showings as that issued by the Department of Labor in June, 1927, which indicates that for all industries (but transportation industry not included) productivity per employee in 1925 was more than 40 per cent greater than the productivity per employee in 1919.⁶

If productivity per employee in industrial enterprises which were under private control both in 1919 and in 1925 increased by 40 per cent or anything approaching that figure, and if productivity per employee in the railroad industry which was in government control in 1919 and in private control in 1925, increased by about 25 per cent, it is difficult to maintain the idea which has been so frequently advanced that the less productivity or efficiency in 1919 in the case of the railroads was due to the mere fact of government control in 1919.

When both sides of the picture are considered, private operation and government operation, it is clear that the explanation for the fact of the great increase in labor efficiency since the War must be found in some other condition than the matter of government operation or private operation during and immediately following the War.

During 1918 and 1919 the business world was practically unanimous in the view that labor was exceptionally less efficient in every line of industry than before the War. This inefficiency was a constant topic of conversation. There were many reasons for this condition. There was a rapid "turnover" of labor due to men being drawn away by the Army and due to the tendency to change employment on account of the intense bidding for labor at constantly increased wages.

⁵ See President Coolidge's address to the New York State Chamber of Commerce, November 19, 1925.

⁶ See "Productivity of Labor" in *Monthly Labor Review* for June, 1927, issued by the U.S. Department of Labor.

As a result, there was a very high proportion of inexperienced workmen. There were also exceptional difficulties of discipline, arising in large part from the confident feeling of the employee that if he lost or gave up his existing job he would be able to get an even better one.

But despite the universality of the opinion in the business world that labor was extremely inefficient, there was a striking variation in the reason assigned for it. The general idea seemed to be that inefficiency of labor in private industry was due to the War; but that inefficiency of railroad labor was due to Federal Control of railroads. It is this same attitude which in more recent years has supported the tendency to claim that the post-war increase in efficiency of railroad labor was due to the railroads escaping from Federal Control, and to claim practically in the same breath that the even greater increase in efficiency of labor in private industry was due to entirely different causes.

The fact is that the improvements in efficiency in both cases have been due in a general way to the same conditions, and to getting away from the hampering and demoralizing influences of the War (which apparently affected industry—judging by the prices industry charged for its products—at least as much as it affected the railroads). In the years immediately following the Armistice, private business and industry in general took stock of the unfavorable operating conditions growing out of the War, got back their skilled employees, devised methods to increase the efficiency of their labor and accordingly made substantial improvement in their operating results. The railroads did the same. The railroads as well as industry in general sought to redouble energy and initiative so as to lift their enterprises to new levels of efficiency.

It has been pointed out in Chapter XII on Capital Expenditures, Finance and Accounting, that the Government was not able during the period of Federal Control to make improvements simply to promote economy of operation, since all the capital available was devoted during the War to improvements to enlarge capacity for handling traffic or to promote safety. But after the return to private control the railroad companies very properly, and especially so on account of the increased cost of labor, set about making labor-saving and efficiency-promoting improvements and between 1920 and 1927 they expended about \$3,600,000,000 for new or improved facilities,

thus increasing their property investment by about 20 per cent. These improvements have materially changed methods of operation so as to save labor and increase efficiency.⁷

It is progress of this character that has contributed largely, both in railroads and in industry generally, to the increased productivity per employee. Of course in both these lines of enterprise there has also been important improvement of morale since the troubled period of the War.

Certainly in the case of the railroads the disturbances incident to war conditions and to the sudden transition from private to public control and the subsequent transition back to private control had disturbing effects. These disturbing factors included the rapid unionization of all railroad labor not theretofore unionized, the transfer to Washington of ultimate decision of contested questions of discipline, the sudden readjustment of the relative levels of pay as between different classes of employees, and the extensive changes in working conditions in 1918. Additional factors which also played a vital part were the impending termination of Federal Control after the Armistice, the conflicting interests of railroad officials and organized railroad labor as to the continuance of that control, and a certain relaxation of interest on the part of railroad officials in making in the matter of economy and efficiency as good a showing for a temporary control on the point of disappearance as they naturally would for a permanent management. All these things contributed to a state of unrest which was not conducive to the best possible results.

In view of these factors, it is remarkable that in the year 1919 such a satisfactory showing was made. That year was beset by abnormal economic factors, such as the slump in business early in the year, the spurt in business in the summer and early fall, the unauthorized shopmen's strike in the summer, the steel strike in September, the coal strike in November and other disturbances, and all in the face of the rapidly nearing termination of Federal Control. Nevertheless the productivity of railroad labor, when measured by the ton miles of service in proportion to the number of hours worked by the employees and paid for by the management, made actually

⁷ An interesting development of these facts is contained in an address by Ralph Budd, President of the Great Northern Railway Company, before the National Electric Light Convention at Atlantic City, New Jersey, June 8, 1927.

a more favorable showing than in 1916, and within one-tenth of one per cent as favorable as the showing in 1917.

<i>Year</i>	<i>Employee-Hours</i>		<i>Revenue and Non-Revenue Ton Miles</i>	
	<i>Total (Millions)</i>	<i>Average per Employee</i>	<i>Total (Millions)</i>	<i>Per Em- ployee Hour</i>
1916	5,190	3,151	396,365	76.4
1917	5,438	3,138	430,319	79.1
1918	5,701	3,096	440,002	77.2
1919	5,032	2,630	395,699	78.6

This showing is all the more strikingly favorable to 1919 when it is considered that on account of the extreme slump in business in the first half of the year the total volume of freight business was smaller than in 1916 and much smaller than in 1917.

In any comparisons of productivity of railroad labor in 1919, as compared with pre-war years, it is important to make the comparison upon the basis of hours worked, rather than on the basis of persons employed. Prior to Federal Control the railroad employees were quite generally working on a ten-hour day (sometimes a nine-hour day),⁸ while the eight-hour day was formally established for all railroad labor during 1918 and was therefore enforced as to all for all of 1919. As a result of this change it appears that, while in the year ending June 30, 1914, railroad employees worked 59.7 hours per week, they worked on an average only 51.4 hours in 1919, being then on the eight-hour day and working very little overtime. A comparison of production per employee between 1919 and any pre-war year overlooks the consideration that in 1919 the employees were working, and were getting paid for, 16 per cent less hours per week than was the case in a normal pre-war year. On the other hand, comparison per employee in 1919 and in post-war years is not open to this same objection, because the eight-hour day, established in 1918, still prevails with minor exceptions.

Any studied consideration of this matter must lead to the conclusion that, despite the numerous reasons why the productivity of railroad employees might easily have been greatly impaired during

⁸ This is subject to the important exceptions (1) that numerous railroads already had working agreements with their shop employees recognizing the eight-hour day, and (2) the basic eight-hour day had been established in 1917 for employees in train and engine service.

Federal Control, the general average of the railroad efficiency in that period makes an extremely favorable comparison with pre-war efficiency and compares with post-war efficiency fully as well as does industrial war-time efficiency with post-war efficiency. In other words, the difficulties were primarily due to the War both in railroads and in other forms of industries and not to the character of control, whether public or private.

One additional fact needs to be stressed: the number of railroad employees was not increased during Federal Control on account of political pressure to find places for individuals. The Railroad Administration was non-partisan. It was a remarkable exemplification of the ideal of the office seeking the man, and seeking him without regard to his political affiliations. The question of politics never arose in the selection of any member of the Central Administration or of the Regional Administrations or of the Federal Managers or their staffs. In fact, the Railroad Administration was so non-partisan that there was practically not a sign of political pressure from members of Congress or from other persons in public office to find places for constituents.

When it came to the determination as to how many or what employees should be hired on a particular railroad, this was left entirely to the Federal Managers, who themselves were practical railroad operating officers chosen without regard to politics. No Federal Manager was ever encouraged to increase unnecessarily the forces employed on his railroad.⁹ On the contrary, Federal Managers were urged again and again by the Central Administration to avoid the employment of unnecessary labor.¹⁰ Therefore the notion, so fre-

⁹ It might be argued that the classifications of labor established in 1918 forced the Federal Managers to increase the number of employees. This action, however, was not political. It had the support of the practical railroad men in the Division of Operation, who evidently regarded it as necessitated by war conditions. Moreover, the number of employee-hours paid for on the railroads as a whole during Federal Control negatives the idea that the classification of labor increased the amount of labor paid for to any such extent as to affect the averages appreciably.

¹⁰ The Railroad Administration made numerous investigations seeking to eliminate unnecessary labor and substantial reductions in the forces on many railroads resulted. On one railroad it appeared that such a reduction in the pay roll aggregated over \$1,000,000 a year and still greater reductions were made on other railroads.

quently underlying the public attitude toward government enterprises, that the number of employees is expanded from political motive had absolutely no foundation in the case of the Railroad Administration.

It is important to emphasize this thought because apparently in many quarters critics of the efficiency of railroad labor have started out by assuming that because the Railroad Administration was a government enterprise it must have enlarged the number of employees on its pay rolls from political considerations and hence that comparatively great inefficiency could be taken for granted without the necessity for being established by careful analysis.

CHAPTER XV

TRANSPORTATION RATES

Not long after the commencement of the War in Europe, railroad operating costs, as well as costs of all other forms of industrial enterprise, began to increase substantially and continued to increase until nearly two years after the Armistice, or until the middle of 1920. The action and policies of the Railroad Administration in making, and in omitting to make, increases in transportation rates to meet the rising costs of operation as they developed during Federal Control deserve full explanation. Of course, the extent to which the cost of conducting Federal Control of the railroads had to be borne by the public partly through taxation, instead of wholly through payment of transportation rates, was dependent in large part upon the extent to which the Railroad Administration could and did increase the transportation rates.

The Rate Increase in 1918.

When Federal Control began it was apparent that the railroads were badly in need of increased rates. Chapter II indicates the limited extent to which this matter had been dealt with by the Interstate Commerce Commission in 1917.

The statute under which the Government took possession and control of the railroads did not purport to confer any rate-making power upon the Government. But the power to make rates was conferred on the President by the Federal Control Act of March 21, 1918. The Commission, upon complaint made to it, could correct these rates if it decided they were unreasonable, but it could not, pending decision, suspend them, as it could rates initiated by the railroad companies. The Commission, in passing upon the reasonableness of rates so complained of, was required to "give due consideration to the fact that the transportation systems are being operated under a unified and coördinated national control and not in competition," and was also required to take into consideration in its hearings any certificate by the President that, in order to defray the expenses of Federal Control and operation and compensation of "the

carriers, operating as a unit," it was necessary to increase the railway operating revenues.

The authority thus conferred on the President covered intrastate as well as interstate rates and only the Interstate Commerce Commission was given power to change either intrastate rates or interstate rates made by him.

In anticipation of such rate-making power being conferred upon the President, the appropriate officers of the Railroad Administration had already been giving consideration to the problem of a speedy and nation-wide revision of the rates,—a task of great complexity on account of intricacy of the rate relationships which were the outgrowth of more than half a century of railroad operation and of a great variety of railroad and commercial competition and of frequent regulation of the rate structure by both State and Federal authorities.

On May 25, 1918, the Director General made General Order No. 28 increasing freight and passenger rates on all railroads under Federal Control, effective June 10 as to passenger rates and June 25 as to freight rates.

By that order freight rates both interstate and intrastate were increased, generally speaking, about 25 per cent, with certain variations and limitations not necessary to describe or explain here. The general effect was to increase freight rates on the average by about 28 per cent.

Passenger fares generally, both interstate and intrastate, were increased at the same time to three cents per mile when lower than that figure. Commutation passenger rates, for daily or regular short haul traffic to and from cities, were increased uniformly 10 per cent throughout the country. Passengers in sleeping cars and parlor cars were required, for the first time, in addition to paying for their berths or seats, to pay an additional passage charge which was fixed at half a cent per mile.¹ The general effect was to increase passenger fares and the fares for the country as a whole by about 18 per cent, excluding the additional passage charge which was discontinued in December, 1918.

These rate increases, being a war measure, were made without giving the shipping or traveling public any opportunity to be heard.

¹ The additional half cent per mile for passengers in sleeping and parlor cars was discontinued toward the end of 1918.

There was not even any formal consultation with the Interstate Commerce Commission. There was no consultation with the State commissions. When the order was issued the Director General issued an appeal to the State commissions bespeaking their patriotic cooperation. The whole nation being thoroughly imbued with the war spirit, these rate increases were accepted without serious objection for the time being.

These rates were established on the basis of the recommendation of the traffic experts of the Railroad Administration under the direction and supervision of Edward Chambers, Director of the Division of Traffic, and after full consideration in conjunction with C. A. Prouty, Director of the Division of Public Service and Accounting.

These rate increases, being made for the benefit of Federal Control of railroads, as contemplated by the Federal Control Act, were made on a general basis for the country as a whole and on the theory that the railroads were being operated as a unit, and without regard to the effect upon any particular railroad or sectional group of railroads. On account of the difference in abilities of different commodities to stand the rate increases there were some variations from the 25 per cent, but these variations were made without regard to how the revenues of particular railroads would profit from the increases. For example, on iron ore moving from the mines to the Great Lakes and then having a lake movement and then another rail movement to reach destination, it was decided, as a matter of convenience, to allow no increase on the second rail movement; and this notwithstanding the fact that, separately considered, the railroad performing the second rail movement might be more in need of additional revenue than the railroad performing the first rail movement. The ability to handle the matter in this unified way and without regard to the needs of railroads in particular sections of the country greatly facilitated consideration and disposition of the problem.

Although great care was taken by the rate experts, who were among the best in the country, to avoid unnecessary disturbance of business through upsetting existing rate relationships and methods of rate construction, an enormous number of questions arose as to the effect of the order, particularly those portions of it dealing with freight rates. The freight rate structure of the country is such a labyrinth of competitive interrelations and of different methods of rate construction that it is impossible to make changes general in

scope, no matter how simply expressed, without encountering thousands of unforeseen aspects. To cope with these questions, the Division of Traffic created thirty-three rate committees in different parts of the country to consider these problems. These committees were at work on the matter at least a year and a half and issued about 20,000 rate advices to deal with the problems thus arising.

Such rate increases were unprecedented in the history of the country. No general rate increase throughout the entire country had ever been made or even seriously proposed under private control. No rate increase, even partial in territorial extent, had ever been sanctioned to anything approaching the percentages of increase which were made by this order. The order was a striking illustration of the power of the Government over the railroads when operated as a unit by the Government for war purposes. But even with all the powers of the Government in the emergency of war, it was not practicable to make these rate increases effective until virtually six months of Federal Control had elapsed. During that period the cost of operation had increased so much that the Government had to incur a large loss after accounting to the railroad companies for the first six months' rental. This loss amounted to \$328,391,000 after charging to the costs of the first six months the retroactive wage increases for those months which were actually paid later in the year.

While operating costs continued to increase through the remainder of 1918, due largely to further increases in wages and to changes in working conditions made in the summer and fall of 1918, there was no indication that the rates as increased in 1918 would not cover the cost of operations and rental if the railroads continued to have a normal volume of traffic.

Losses from November, 1918, to June, 1919, Due Particularly to Slump in Business. In July and August, 1919, Operating Costs and Rentals Were Earned on Existing Rates, Due to Revival of Business.

Immediately after the Armistice there developed a very serious slump in business. This became apparent in the operating returns from November, 1918, which were available at the end of December. The showing was even worse for the month of December. As has been pointed out in Chapter VI this business depression, unprecedented

up to that time, in the loss of traffic and revenues to the railroads, was the controlling feature of the situation up to and including the month of June, 1919. In the eight months from November, 1918, to June, 1919, the operating revenues fell short by \$255,000,000² of paying the operating costs and the proportionate part of the standard return. There was, however, no serious pressure during this period for an increase in rates to counteract the loss in revenues. Those advised as to the situation appreciated that a time of heavy loss of traffic due to business depression was not an expedient time for increasing rates, since that would merely accentuate the loss of traffic and would still further complicate the business depression.

An analogous situation developed in 1921, about a year after the railroads had been returned to private control. In the first six months of 1921 the net railway operating income of Class I railroads was only \$145,034,715, as compared with \$178,243,000³ in the first six months of 1919. But in 1921, as well as in 1919, the view prevailed that there should be no general rate increase, in time of heavy business depression, to make up for the serious income shortage so largely due to that depression.

The depression which had involved the Railroad Administration in such heavy losses up to and including June, 1919, then gave way to a sudden and strong revival of business by July,—another illustration of the kaleidoscopic changes in the economic situation in the post-war period. In that month, as well as in August and September, the Railroad Administration earned enough to pay the operating costs as well as the full proportion of rental chargeable to those months.⁴

*The Policy in the Summer and Fall of 1919 Was to Avert Wage
Increases and Rate Increases with their Adverse Effect on
the High Cost of Living.*

Wage demands, which had been agitated and pressed throughout the spring, came to a head in July and August. If they had been

² For basis for this figure, see appendix to Chapter XVI.

³ For basis for this figure, see appendix to Chapter XVI.

⁴ This "full proportion of rental" means that a proportion of the year's rental is taken corresponding with the heavy proportion attributable to the months of July, August and September in the average year's earnings of the test period.

conceded it would have involved a burden of about \$800,000,000 additional operating cost per year.

This would have involved an increase of rates or would have had to be paid out of the public treasury, since the existing rates were in July and August producing only a small margin above the operating costs and rentals.

At that time the Government was much concerned at the continued mounting of the cost of living, which was putting heavy burdens on the public, serving to disturb economic conditions and furnish fuel for labor agitation in industry generally. It was believed that an increase in rates to meet the cost of such wage concessions would accentuate an increase in the cost of living, probably out of all proportion to the increase in rates itself, and that this increase in the cost of living would speedily lead to demands that it be covered by still further increases in wages.

It therefore seemed to be the part of wisdom to hold railroad wages as nearly as practicable where they were and thereby avoid the necessity for increases in rates. This was particularly indicated as the sound course because it was the general conviction that the cost of living was attaining levels which could be only temporary and that if the railroad situation as to wages and rates could be held approximately where it was for a few months, the general public interest in reducing the cost of living would be distinctly promoted.

In accordance with this general policy the Director General denied demands of the shopmen for large general increases in wages and on August 25, 1919, the President issued a statement concurring in that denial. He expressed the opinion that the cost of living would soon begin to fall, that the situation was temporary and ought not to be met by wage increases which would likely be permanent and that increases in wages at that time would likely still further increase the cost of living and we should only have to go through the same process again; that only by keeping the cost of production on the level then prevailing, by increasing production, and by rigid economy, could we hope for large decreases in the burdensome cost of living. The President further said:

We are acting, not for private corporations, but in the name of the Government and the public, and must assess our responsibility accordingly. For it is neither wise nor feasible to take care of increases in the wages of railroad employees at this time by increases in freight rates.

It is impossible at this time, until peace has come and normal conditions are restored, to estimate what the earning capacity of the railroads will be when ordinary conditions return. There is no certain basis, therefore, for calculating what the increases of freight rates should be, and it is necessary for the time being at any rate, to take care of all increases in the wages of railway employees through appropriations from the Public Treasury.⁵

Slightly Less Favorable Operating Results Beginning with October Raised Question as to Rate Increase. This Would Have at Once Reopened the General Wage Situation.

In July and August, 1919, as well as in September,⁶ the net railway operating income was greater than it had been, on the average, in the corresponding months of the test period (the three years ending June 30, 1917). It was not until October⁶ that the net railway operating income fell below the same figure for the average October of the test period. But the decrease was so slight, being only \$8,000,000, that it would have been avoided if there had been an increase of only 2 per cent on all rates, passenger and freight. To have reopened the whole wage situation for the sake of such minor rate adjustments would have been extremely unwise, even if such rate increases could have been made effective in time to be of value to the Railroad Administration. But, as explained below, the Railroad Administration would have gotten no benefit on account of the delay in getting any rate increases put into effect.

It still seemed to the Director General that it was more in the public interest to hold rates and wages for the time being as nearly as practicable at the levels then existing than to attempt then to readjust the situation. This was especially true because, on the basis of the indications even in October, the significance to the public

⁵ As a matter of fact, contrary to the general expectation and belief at that time, the cost of living continued to rise for nearly a year after August, 1919. As a result the Labor Board, after the return of the railroads to private control, felt forced to report in favor of increases in wages, effective May 1, 1920, aggregating about \$618,000,000 per year.

⁶ The results for the months of September and October as above referred to are readjusted so as to eliminate retroactive payments of wages charged in those months but pertaining to earlier months and (in October) a book-keeping debit in connection with the reinstatement of per diem charges between railroads under Federal Control.

treasury was proportionately small, the loss for that month being only an insignificant fraction of the loss for the eight months of the business depression, which in no event could be reimbursed by an increase in rates. This policy did not grow out of any mistaken assumption that, merely by refraining from increasing rates for the time being, the public would be saved from the total cost of railroad operation. The President and Director General, however, were of the opinion that the way to keep at the minimum the stimulation of the factors playing a part in the upward movement of the cost of living was to refrain from lifting to new levels either rates or wages.

In the Fall of 1919 Rates Could not Be Made as a War Measure or Soon Enough to Benefit the Railroad Administration, Especially in View of the Congressional Attitude.

With the signing of the Armistice, the time passed for justifying a rate increase as a war measure. The temper of the public was such that general rate increases could not be made in the fall of 1919 except after full hearings by the proper peace-time rate-making tribunals, Federal and State.

Congress, in its session ending March 4, 1919, showed its intention to legislate to that effect. After the termination of hostilities, and the replacement of the war spirit by a spirit of general unrest and criticism, there had developed a feeling that the President should no longer have the power to initiate rate increases without the Interstate Commerce Commission having the right of suspension and decision prior to the rates going into effect. The State commissions, too, were discontented that they had been excluded from control over intrastate rates. On March 3, 1919, a bill was favorably reported in the Senate giving the Interstate Commerce Commission the power to suspend any rates initiated by the President. It was avowed that if the appropriation for the Railroad Administration then under consideration was pressed to a vote before the adjournment on March 4, that bill would be put on it as a rider. This bill, known as Senate Bill 641, was passed by the Senate at the extra session beginning in May, 1919, the date of such passage being June 12. It was reported in the House with amendments August 13, passed by the House September 24, and the conference report was adopted in the House October 30 and in the Senate November 3. By the bill

as finally passed by both Houses, the Interstate Commerce Commission was given the power to suspend interstate rates initiated by the President, and the President was in effect prohibited from increasing intrastate rates at all without the prior approval of the State commissions.

Consideration of this matter by Congress was delayed as long as it was because the Director General assured the Congressional leaders that no general rate increases were in immediate contemplation. The Director General's desire to delay the passage of the bill was in order to postpone its presentation to the President for approval, he being absent during part of August and ill during and after September. Upon passage of the bill in November the President vetoed it because he regarded its provision that no intrastate rates could be initiated except with the approval of the State commissions as in derogation of the Federal power. The sentiment in favor of the bill was so pronounced that it would have been passed much earlier (and if necessary over the President's veto), if it had been deemed necessary to forestall the initiation of rates which would be free from the power of suspension by the ordinary Federal and State rate-making tribunals.

This bill exemplifies the popular hostility to the President's war-time method of making rates. If in the fall of 1919 the Railroad Administration had attempted to make rate increases, it would have been necessary to handle the matter as a peace-time proposal. The rate increases could not have been effective until investigation, upon hearings by the Interstate Commerce Commission, and probably not until after corresponding investigation, upon hearings, by the State commissions as to intrastate rates. Even the war-time increase in rates made in May, 1918, involved several months of study and delay before the rates could be made effective, although no hearings were had and no commissions had to be consulted. With the necessity for hearings, and the extremely critical attitude indicated by Congress and by the public alike, the hearings undoubtedly would have occupied a substantial length of time. There was practically no prospect of any proposal of rate increases initiated even as early as September, 1919, being heard and determined by the necessary commission or commissions and the rate increases being made effective before the end of December. Federal Control was to end on December

31.⁷ Consequently, no benefits to the Railroad Administration could be expected from any efforts made at any time in the fall of 1919 to increase rates. Nevertheless, the mere proposal to increase rates would have reopened the wage questions which the Railroad Administration was trying to hold in abeyance in the hope and belief that the peak of the high cost of living would be reached and a downward trend would begin.

The Position of the Railroad Executives That the Director General Ought to Prescribe Rates Sufficient to Meet the Needs of the Railroads after the Return to Private Control.

It was strongly urged upon the Director General by the railroad executives in the early fall of 1919, that he should prescribe rates sufficient to meet the needs of the railroads after the return to private control.

The railroad executives based their contention in large part upon the view that the President at the time of taking possession of the railroads had declared that the Government would scrupulously look after the interests of the stockholders and would return the properties in good condition. This declaration by the President, however, conferred no rate-making power upon him, and, particularly, no power to make rates to cover the needs of private operation after the end of Federal Control. By the Federal Control Act, Congress indicated clearly that the President's power to increase rates would be exercised for the purpose of obtaining sufficient revenues to meet the cost while the railroads were operated by the Government under unified control. The Federal Control Act did not contemplate empowering the President to make schedules of rates on which, after the end of Federal Control, the railroads could operate successfully under private management as separate and competing carriers. That Act had not concerned itself about what would be the status of railroad rates after the return to private control. Indeed, it was doubted whether the rates initiated by the President would continue in effect at all after the end of Federal Control in the absence of additional legislation. To remove this doubt, the Transportation Act of 1920 declared that the rates initiated by the President for

⁷ In the latter part of December, Federal Control was extended for two months to enable Congress to complete its railroad legislation.

the purposes of Federal Control should continue in effect until changed pursuant to law.

Under private control the needs of the railroads in different sections of the country were different. Some had suffered more than others from the modifications in costs of labor, materials and supplies during the War. Some had profited more than others from the rate increases made as a war measure in 1918. This was permissible for purposes of Federal Control. But a different method was called for when the railroads were returned to private control. In view of such differences, the Interstate Commerce Commission in 1920 allowed a 40 per cent increase of freight rates for railroads in the East, 25 per cent for those west of the Rocky Mountains, 35 per cent for those in other parts of the West and 25 per cent for those in the Southeast. But the President's power to initiate rates was to be exercised for the purpose of meeting the expenses of unified operation, and for that purpose there was no occasion for varying the rate of increase so as to give some railroads more benefit than others. It would have been difficult for the President to convince the rate-making bodies of the country that the purposes of unified control necessitated his imposing 60 per cent more of an increase upon shippers in the East than upon shippers in the South.

Throughout 1919 the President was holding the railroads in government control to give Congress time to adopt legislation to cover the needs of the railroads after their return to private control. This legislation was taking form in the Congressional committees throughout the summer, fall and winter of that year. It contemplated a guaranty to the railroad companies for a limited period so as to enable the Interstate Commerce Commission, the permanent rate-making tribunal, to make rates to sustain the railroads and their credit under private control. This conception, which was in the minds of the legislators throughout the latter part of 1919, was embodied in the legislation in the form of a six months' guaranty and this legislation, known as the Transportation Act, 1920, was approved by the President on February 28, 1920. Within that six months' period the Interstate Commerce Commission prescribed the increased rates. In this way the Government looked after the interests of the railroad security owners by prescribing rates which it was believed would support the credit of the railroads generally, and this was in accordance with the President's assurance. He had given no assur-

ance that he would himself initiate a rate increase for such a purpose. Congress never conferred upon him the power to do so, and instead adopted in the Transportation Act a different and a much better method for handling the rate problem in the interest of the security holders as well as in the interest of the general public.

In the Fall of 1919 the Future Was too Obscure to Justify a Peace-time Rate-Making Tribunal in Making Rates Adequate for Private Operation in 1920.

It is a striking characteristic of the regulation of railroad rates, under statutes requiring rates to be reasonable and requiring unreasonable rates to be corrected by public commissions, that rate regulation cannot and does not respond promptly to misgivings as to the future even though such misgivings may be prejudicial to railroad credit. The rate changes must be based upon showings reasonably susceptible of demonstration. They cannot be made with that flexibility and freedom with which Congress can impose taxes. Congress can evolve a tax policy as it goes along and can impose taxes to meet even vaguely foreseen increases in governmental cost. But railroad rates cannot be increased under peace-time methods except when the Interstate Commerce Commission or State Commission, as the case may be, regards the increases as reasonable on the basis of past performance, modified by reasonably convincing forecast of the future.

The performance for any period of twelve months preceding any date in the summer or fall of 1919 was in large part due to the extraordinary slump of business in the eight months ending in June, 1919,—a matter which could not safely or properly be made the basis for future rate increases. The future situation was uncertain in the extreme. If business continued heavy, there was reason to believe that the existing rates would fall but little, if any, short of meeting the current and anticipated monthly expenses and rentals. For the period from July to October, as a whole, operating revenues were more than covering expenses and the amount necessary to pay the full proportion of compensation due the railroad companies. Expenses were increasing slowly in response (a) to the equalizing readjustments recently made or still in prospect by reason of commitments the Railroad Administration had made in order to avert

general and extensive advances in wages and (b) to the increasing prices of materials, which were still mounting, although it was expected that at any moment the peak in that respect would be reached. As above shown, there were only four months of 1919, July, August, September and October, which were free of abnormal business depression. In the first three of these four months the Railroad Administration was earning enough to pay operating expenses and rentals. In the last of the four an increase of only 2 per cent on all rates, freight and passenger, would have been sufficient to meet all operating expenses and rentals. In order to justify substantially greater rate increases it would have been necessary to base them largely upon the results in the preceding months of abnormal business depression, and even this would have resulted in only a small increase. The only other way to justify a substantial increase would have been to anticipate what would be the future effects of conditions which could not even be clearly foreseen. Any such method of fixing rates would have disregarded the cautious rate-making policies which the Interstate Commerce Commission had always observed in time of peace.

There was no sufficient basis in the fall of 1919 for convincing the Interstate Commerce Commission (and the State commissions as to intrastate rates), that heavy increases in rates were necessary to meet future current expenses. The whole world was in a state of unprecedented uncertainty after the greatest war the world had ever experienced. There are times when an intelligent and reliable estimate of business conditions has to be postponed, and the summer and fall of 1919 constituted such a time. It was essential to wait until the interaction of the new forces growing out of the War and its aftermath should come somewhat nearer to a state of equilibrium before anything approaching an intelligent forecast could be made as to the future requirements of the railroads under private operation.

It will be recalled that early in 1919 Congress was asked to make a choice between the very prompt return of railroads to private control and an extension of Federal Control of sufficient length and certainty to enable it to aid in stabilizing the post-war conditions. Congress was unwilling to sanction either course but insisted that the President retain control until Congress could adopt legislation covering the railroad situation after the return to private control.

The demand which, nevertheless, was strongly pressed that the Railroad Administration stabilize the situation as to rates for private control was in conflict with prevailing conditions because (1) the rapidly ending tenure of Federal Control was most unfavorable to dealing with such an effort at stabilization and the time was far from ripe for attempting it, (2) the Railroad Administration's making of rates for private control of the railroads was not within the contemplation of the Federal Control Act and (3) this phase of the subject was fairly within the scope of the legislation upon which the Congress was engaged.

The increases in rates which the Interstate Commerce Commission made July 29, 1920, effective September 1, upon the expiration of the government guaranty, were far higher than any that could have been seriously contemplated by responsible government authorities in the fall of 1919, and yet were no higher than the situation demanded in view of the unfolding of the after-effects of the War. These increases were, on freight traffic 40 per cent in the East (covering 45 per cent of the freight traffic of the country), 35 per cent and 25 per cent in the West and 25 per cent in the Southeast; and on passenger traffic were uniformly 20 per cent throughout the country. In addition, a surcharge was imposed on passengers traveling in sleeping and parlor cars, amounting to approximately 10 per cent further increase in the passenger rates charged them.

A useful exposition of the rapidly changing picture as the months passed after the fall of 1919 can be had by an analysis of the elements which finally built up the showing which led to the rate increases actually granted.

The rate increases on passenger and freight traffic actually granted by the Interstate Commerce Commission may be said to correspond roughly to a general average increase of 32 per cent on all traffic, freight and passenger.

In the applications the carriers made in the latter part of April and the early part of May, 1920, to the Interstate Commerce Commission they based their computations upon a constructive year ending October 31, 1919.

The actual results for the twelve months in question (and even these results were not available to the Railroad Administration until the latter part of November) indicated that in order to pay the

rental of \$940,000,000 due the railroads, the situation might be met by an increase in all rates of 8 per cent.

Revision and readjustment made by the railroad companies as of January and February, 1920, so as to state the constructive year on the then available estimates of wages, prices and other costs indicated a further shortage which would have required a further increase of 4 per cent.

But by the time these computations had been made there had been further developments which indicated a necessity for a further increase of 3 per cent.

But the policy of the Transportation Act in providing that rates should be on a basis sufficient to yield for the railroads a return of $5\frac{1}{2}$ per cent or 6 per cent per annum on the value as fixed by the Commission indicated an annual return on this account of \$1,134,000,000, which was \$194,000,000 more than the rental which had been fixed under the Federal Control Act. In order to meet this additional feature, a further increase in all rates would have been required of 4 per cent.

But while these matters were under consideration the Labor Board approved an increase of \$618,000,000 in wages, and in order to meet this, a further increase was called for of 13 per cent.

This made a total indicated increase of 32 per cent on all freight and passenger rates in order to meet the situation in the spring of 1920 as it could then be estimated on the basis of adjustments which could not have been accurately made in the fall of 1919 and on the basis of developments which could not then be foreseen. What the Commission did in allowing increases in freight rates in the different districts varying from 25 per cent to 40 per cent, and in allowing a 20 per cent increase in passenger rates throughout the country, was roughly the equivalent of a uniform increase in all freight and passenger rates for the whole country of 32 per cent.

This analysis shows how little of this result could have been accomplished by anything which could have been done in the fall of 1919, even if conditions had been favorable for prompt and sympathetic action at that time by the rate-making bodies.

In some quarters the view was also suggested at the end of Federal Control that the President had the power and could have successfully exercised it in 1919, to initiate rate increases which would have relieved the public treasury of the necessity of making up losses in-

curred during Federal Control and in addition would have given the railroad companies such an established credit that they would have been able to repay the approximate amount which the Government had advanced them, and further would have made the situation of the railroads so reassuring as to obviate the necessity for any government guaranty and would have saved the public treasury the additional heavy costs incident to that guaranty. Such a view does not take into account the realities which confronted the Railroad Administration. After the Armistice it could not increase rates to avert losses due to an unprecedented business depression, nor could it when subject to peace-time regulation make rates except on a reasonably tangible basis of past performance which would be convincing to the regulating tribunals. It could neither foresee, nor make rates by anticipation to cover, further increases in costs not clearly apparent in their full effect during Federal Control but coming into view thereafter. The Railroad Administration could not possibly have foreseen or allowed for the various elements above outlined as contributing to the final showing which justified the heavy rate increases made by the Interstate Commerce Commission in the summer of 1920. Even with those heavy increases it required several years for the railroads to work through the economic disruptions caused by the War before they could feel their credit was reasonably established. They had to go through a severe slump in business in the first half of 1921, even more pronounced than that in the first half of 1919; having made extremely heavy wage increases after the return to private control in 1920, they had to secure a substantial wage reduction in the fall of 1921, and they had to go through a costly shop strike in 1922. With all these things behind them, they were able by 1923 or 1924 to begin to show, as a whole (but even then with unfavorable local situations), a reasonable state of prosperity and credit. When we consider that even after the comprehensive treatment which the Interstate Commerce Commission was able to give to the rate problem in the summer of 1920 it took several years for the railroad companies to be in a position of reasonably comfortable credit, it is easy to see that in the summer or fall of 1919 it would have been utterly impossible to give any treatment to the railroad situation which would have put railroad credit on a satisfactory basis or would have given any appreciable relief to the public treasury.

The Attempt to Increase Rates in the Fall of 1919 Would Have Been Made under the Most Inauspicious Conditions and Would Have Been Prejudicial to the Large Increase Needed in 1920.

Any rate increase which might have been initiated by the Railroad Administration in the fall of 1919 would have been regarded as for the benefit of the railroad companies, because it could not have become effective prior to the anticipated termination of Federal Control on December 31. There was a very large element in the country which was disposed to distrust any action taken by the Railroad Administration in favor of the railroad companies because the Railroad Administration was organized so largely with railroad officers who had been in the employ of the railroad companies prior to Federal Control and who it was generally believed would resume their connection with the railroad companies immediately at the close of Federal Control. Hence a rate increase initiated upon the advice of the Railroad Administration for the obvious benefit of the railroad companies upon the resumption of private control would have been regarded throughout the country with suspicion in many quarters capable of organized and emphatic expression. This suspicion would have led to strong opposition. This would have made for delay and exceptional scrutiny on the part of the rate-making commissions. A rate increase initiated by the Railroad Administration for the benefit of the railroad companies would have been under the least favorable auspices possible.

The case would have been far from clear for any substantial increase at all in the fall of 1919. The important losses had been due to an abnormal slump in business for eight months after the Armistice, ending with June. Rates had appeared sufficient in July, August and September and had just failed of being sufficient in October. The coal strike appeared largely responsible for the losses in November and December. The opponents of rate increases would have had strong arguments which could not be convincingly answered then. The Director General believed there would develop organized resistance which, when once started, would keep on and be extremely active in opposition to further increases if they should be necessary in 1920.

The Director General felt also that any increase made in the summer or fall of 1919 would not only be futile but by reason of

its necessary fractional and inadequate character would constitute a serious disturbance to business.

The railroad freight rate structure cannot be revised at the stroke of a pen, as has been frequently assumed. That structure is a matter of growth. It is a resultant of the history of business ever since railroads began to operate in this country. It is bewildering in its complexity, and it has to be handled with the greatest caution in order to avoid far-reaching disruptions of business. This is evidenced by the extensive readjustments and the dissatisfaction growing out of the increase made in 1918 as a war measure.

After the experience with the increase in 1918, it was clear to the Director General that any substantial increase made in 1919 upon grounds that were highly speculative and rapidly changing would have been without any finality and a great and unnecessary inconvenience to the business public.

If an increase had been made in the fall of 1919 it would have been altogether insufficient to meet the situation; it would have developed highly organized opposition which would have thrived on the resulting rate disturbances and complaints and which would have been ready and anxious to fight any further increase sought. The inconvenience to which the shipping public would have been subjected by the uncertainties arising out of a rate increase in the fall of 1919 would have served to stimulate opposition later when a more comprehensive rate increase was sought.

The psychology of the time was such that the public was resentful toward the Government for its interference in business during the War, but was sympathetic toward the railroad companies which occupied the favorable position of not being responsible for the inconvenience which had arisen out of railroad operation during the War. The necessities of the situation were far from clear in the fall of 1919, but were very clear in the spring and summer of 1920. The power of the President in the fall of 1919 to use his war powers under the Federal Control Act to make a rate increase for the peacetime benefit of the railroads was open to successful attack. But when the Interstate Commerce Commission in 1920 was called upon to make the extensive rate increase then made it was acting under a new charter of power from Congress, intended to cover the precise situation then existing. A contrast of the disadvantageous factors in the fall of 1919 and of the advantageous factors in the spring of 1920

can only show that efforts to increase rates in the fall of 1919 would have been disappointing to the railroads and would have hampered them in the further demands which they would have had to make in 1920; whereas the refusal of the Railroad Administration to make increases in the fall of 1919 left the situation in the best possible shape to admit of prompt and favorable action from the Interstate Commerce Commission with practically no opposition in the summer of 1920.

It has seemed worth while to make these detailed comments upon this important situation in order to bring out in this connection, as has been done in other connections, the fundamental proposition that the difficulties confronting railroad transportation went far deeper than the mere form of operation during the War or than particular decisions reached by the Railroad Administration. The criticisms as to the Railroad Administration rate policy have tended to create the impression that if a different decision had been made the troubles of the railroad companies in the matter of revenues would have been averted. The fact was that the economic dislocations caused by the War were so profound that it was impossible to foresee their extent and impossible to get an immediate and adequate cure even when they could be seen and appraised. One difficulty unfolded after another and it required a lapse of years of readjustment and of hardship before an even reasonably satisfactory and reassuring basis of railroad revenues could be secured.

CHAPTER XVI

COST OF FEDERAL CONTROL

THIS has been a much-discussed topic. It has two distinct aspects which have frequently been confused. One aspect is presented in the efforts often made to compare or contrast the cost of private operation of the railroads with the cost of public operation of the same railroads. The other aspect is presented by the inquiry as to what was the total amount of money which had to be furnished by the public treasury in order to conduct and liquidate the task of assuming, carrying on and winding up Federal Control with its unprecedented transfer and retransfer of property; and this cost involves railroads and numerous other properties, and many non-operating elements as well as those of an operating character.

Comparison of Public and Private Operating Cost of the Railroads.

If comparison be made on the basis of the current operating results of Class I railroads under private management during the test period of three years ending June 30, 1917, and of the Class I railroads under Federal Control during the twenty-six months ending February 29, 1920, the figures will show that the net railway operating income during Federal Control averaged \$296,000,000 per year less than during the test period, or \$642,000,000 less for the entire twenty-six months of Federal Control than for a corresponding proportion of the test period. The appendix to this chapter shows how these figures and the other figures discussed below are derived.

The net railway operating income is the difference between the operating revenues and the operating and certain related expenses. Therefore the net figure depends as much on the revenues as upon the expenses. Either a reduction in the revenues or an increase in the expenses diminishes the net. Hence the net railway operating income is an untrustworthy basis of arriving at a relation between the expenses of the two periods, since the net in one of the periods may have been reduced by relatively low revenues. The revenues may have been reduced either by the rates being relatively low or by the

volume of business being relatively small. Both of these factors affecting revenues had an important bearing during Federal Control.

Rates were admittedly much too low at the beginning of Federal Control. They needed to be increased at the earliest possible moment. But with all the expedition which the war emergency made practicable, nearly six months elapsed before the increased rates could be made effective, this delay being due to the unavoidable complications surrounding nation-wide increases in transportation rates. As a result of this unavoidable delay the operating revenues for the first six months of 1918 fell short by \$382,000,000 of the net railway operating income earned during the average six months January to June of the test period.

Abnormal losses in business in the portion of Federal Control following the Armistice also seriously reduced the operating revenues and thus constituted a very substantial factor in diminishing the net railway operating income. In the eight months beginning with the month of the Armistice, that is, from November, 1918, to June, 1919, there was a very severe slump in business due to post-armistice uncertainty and readjustment. In those eight months the net railway operating income in respect of the railroads under Federal Control was about \$255,000,000 less than it was on the average for the corresponding eight months in the test period; whereas in the four months of July to October, 1919, when there was a large business, the net railway operating income was more than \$9,000,000 greater than it was for the corresponding months of the test period, and this notwithstanding the fact that expenses were on a higher level, due to further wage increases and much greater activity in maintenance than was true for the preceding eight months.

Another factor unfavorably affecting the operating revenues of Federal Control and therefore diminishing net railway operating income was the virtually nation-wide bituminous coal strike beginning November 1, 1919, and lasting into December. The loss of net railway operating income for those two months, as compared with test period results, was over \$121,000,000.

But for (1) the impracticability of making any rate increase effective January 1, 1918, (2) the heavy slump in business in the eight months from November, 1918, to June, 1919, and (3) the coal strike in the last two months of 1919, the revenues would have been sufficient to wipe out much, if not all, of the shortage of \$642,-

000,000 above referred to, and this would have been true regardless of the much higher cost levels on which the Railroad Administration was operating. This makes clear the fallacy, and indeed the futility, of trying to arrive at a comparative estimate of the *cost* of Class I railway operations during Federal Control by means of a comparison of the net railway operating income of that period with the net railway operating income of the test period under private operation, since the net railway operating income depends as much on revenues as on cost.

The only reasonably practicable way to make a comparison between the *cost* of operation during Federal Control and private control, respectively, is to consider the operating costs of the two forms of operation. As is shown more fully in the appendix to this chapter, the average annual operating cost of the Class I railroads during the test period and Federal Control, respectively, was as follows:

Average annual operating cost during Federal Control	\$4,440,672,000
Average annual operating cost during the test period	2,425,000,000 ¹
Average annual excess of operating cost during Federal Control over test period	2,015,672,000
Percentage of increase of Federal Control over test period	83 per cent

The foregoing increase of 83 per cent is computed on the aggregate cost in the average year of Federal Control as compared with the average year of the test period, and hence makes no allowance for the fact that a greater volume of business was handled during Federal Control. For an average year based on 1918 and 1919, as compared with the average year of the test period, there was an increase of 30 per cent in passenger miles and an increase of 16 per cent in revenue freight ton miles. Consequently the percentage increase during Federal Control in the unit cost would be much less than the 83 per cent increase in the aggregate cost.

The Interstate Commerce Commission has made a comparison of unit costs of railroad service, 1915 to 1925, taking as a basis cer-

¹ Estimated average annual operating cost during test period of those Class I railroads which were under Federal Control (99 per cent of expenses of all Class I railroads as shown in appendix).

tain average unit costs during the test period. The percentages of increase in these unit costs for 1918 and 1919 as compared with the average test period year were as follows:

Per Cent Increase over Test Period.

	1918	1919
	<i>Per cent</i>	
Cost per freight revenue ton mile	49	81
Cost per passenger train car mile	53	73

The comparison of passenger unit costs on the passenger train car mile basis is less favorable to Federal Control than on the passenger mile basis, as the car miles for the average years 1918 and 1919 increased only 1 per cent over the average test period year while there was the increase of 30 per cent for the passenger miles indicated above. More detailed reference is made to this showing in the appendix to this chapter.

The percentages mentioned in the last three paragraphs convey a reasonably good idea of the increased operating cost during Federal Control as compared with the test period. Such rates of increase in cost are believed to be not out of line with the increases in cost in private industry during the war period when compared with the pre-war years. Certainly the increases in prices charged for the products of private industry during the War tend to indicate greater increases in cost than are above indicated for the Railroad Administration.

As a suggestive illustration that the increased costs which affected the railroads also affected industries in private control, it is interesting to compare the increase during the war period in the unit manufacturing costs of one of the greatest private enterprises in the country, the United States Steel Corporation, with the increased unit operating costs of the railroads. This comparison, which is set forth in more detail in the appendix to this chapter, shows that the Steel Corporation's unit cost was approximately 62 per cent higher in 1918 and 83 per cent higher in 1919 than in 1914, while the unit cost of Class I railroads showed substantially smaller increases in 1918 and 1919, respectively, over the fiscal year 1914-1915. In fact the railroad cost per freight ton mile increased only 41 per cent in 1918 and only 70 per cent in 1919 as compared with the year 1914-1915.

The objection might be suggested that the operating expenses of the railroads during Federal Control were not as large as they would have been if complete maintenance had been put upon the properties, and, further, that there were many other expenditures incident to Federal Control which should be taken into account in making a comparison between the operating costs of railroads under private control and under Federal Control. This point would not be well taken as to most of the additional expenditures, because they related to non-railroad items, or, if relating to railroad matters, were entirely apart from operating costs. To the extent, however, of \$204,000,000 of these other expenditures, the claim might be made, with more or less plausibility (although it is believed without sufficient foundation), that to a large extent they ought to be treated as an addition to the operating cost of Class I railroads under Federal Control. These distinctions will appear in the succeeding part of this chapter and in the appendix to it. But even the addition of the entire \$204,000,000 to the operating costs of Class I railroads would increase the expenses for the period of Federal Control by only about 2 per cent which would have a negligible effect on the increases in unit operating costs given above.

Cost of Federal Control to the Treasury in All Aspects and as to All Properties.

The foregoing comparison of railroad operating cost during Federal Control and during a corresponding proportion of the test period shows that the increase in such operating cost during Federal Control was 83 per cent. In large part this increase in operating cost was borne by the public through payment of increased freight and passenger rates, but to the extent this increase in operating cost was not covered by the increase in revenues, or in other words, to the extent the net railway operating income during Federal Control was less than the net railway operating income for a corresponding proportion of the test period, the shortage was borne by the public treasury, that is, it was borne by the public through the payment of taxes. This shortage was \$642,000,000 for Class I railroads and \$26,000,000 for other railroads. In addition, the public treasury had to bear certain other costs connected with Federal Control of railroads and other transportation systems.

The ultimate net cost to the public treasury, as it stood December 31, 1924, may be summarized as follows:

1. Shortage in net railway operating income Class I railroads	\$ 642,000,000
2. Corresponding shortage for other railroads	26,000,000
3. Numerous adjustments, including settlement of claims for undermaintenance	204,000,000
4. Compensation to carriers in excess of standard return basis	105,000,000
5. Accounting to the carriers for the heavy increase in prices of materials and supplies between the beginning and end of Federal Control	101,000,000
6. Cost to the treasury of non-railroad activities such as express business, coastwise steamships, inland waterways	88,500,000
7. Capital expenditures for war purposes not chargeable to the carriers	11,000,000
8. Expenses of the Railroad Administration for the liquidation period from March 1, 1920, to December 31, 1924	19,000,000
9. Total	\$1,196,500,000
10. Less credits for net interest collections	73,000,000
11. Net cost of Federal Control	\$1,123,500,000 ²

This analysis makes it clear that while the treasury had to bear the net burden thus indicated, the expenditures had an important practical significance. For example, the \$105,000,000 additional compensation to the railroad companies and the \$101,000,000 indemnification to them against the increasing prices of materials and supplies were items which inured very properly to the benefit of the security holders of the railroad companies. As has already been pointed out, the operating losses which were sustained by the public treasury were due to the payment through taxation of part of the cost of transportation services of which the public had the benefit and were for the purpose of assuring to the railroad companies a

² About the time of the termination of Federal Control, some estimates were made and quite widely accepted which suggested that the total payments made and to be made by the Treasury on account of the twenty-six months of Federal Control would amount to \$1,800,000,000. This figure turned out later to be nearly \$700,000,000 too high.

definite return upon their properties during a period of great financial uncertainty for all public service corporations.

The figure of \$1,123,500,000 measures the ultimate burden resting upon the public treasury. It is probably true that for a substantial period after Congress made, on May 8, 1920, additional appropriations for the liquidation of Federal Control, this burden was considerably larger. For example, the Railroad Administration was not able to sell any of the equipment trust notes which it was carrying for the railroads and which aggregated over \$346,000,000 until the fall of 1921 and meanwhile the Government had to carry that burden. All but \$6,000,000 of these equipment trust notes, however, had been sold by December 31, 1924.

There is no basis for the assumption that through continuance of private operation of the railroads there would have been any escape from the so-called "cost" of government operation. The same or a substantially equivalent cost would still have been borne in one form or another. If the railroad companies had operated their properties throughout the twenty-six months from January, 1918, to February, 1920, they would have had to solve the following questions: Would they have been able to get rid of conflicting priority demands for transportation? Would they have cleared up the congestion that was rapidly getting worse in the latter part of 1917? Would they have been able to avoid great increases in wages? (Within five months after the end of Federal Control the railroads found it necessary to make still further increases in wages aggregating \$618,000,000 per year.) Would they have been able to avoid the labor unrest which characterized all forms of industry, and would they thereby have developed an efficiency which was not characteristic of other industry and had not been characteristic of private control of railroads in 1917? Would they have been able to buy materials and supplies at cheaper prices than those prevailing? Would they have been able to get along without extensive improvements, especially in the absence of unification? Would they have been able to get the necessary capital for improvements, or obtain it at lower interest rates than the Government was prepared to and did offer while the railroads were under Federal Control? In short, would they have been able to go through the War free of the economic disturbances and burdens which the War brought to every form of business enterprise?

If the railroad companies had operated their properties throughout the War and, like all other industrial enterprises, had been unable to escape the burdens incident to war, they might or might not have succeeded in getting as great increases in rates as were made by the Railroad Administration. It is highly improbable that they would have succeeded in getting greater increases in the kaleidoscopic conditions which developed in 1918 and 1919, but, if they had, this would not have eliminated the cost of these burdens of the War. If transportation rates had been high enough to pay all of the increased cost, the public would have had to pay that cost. If transportation rates had not been high enough to pay all the increased cost, the security holders would have suffered the loss unless the Government, to avert that condition, had afforded relief by some form of guaranty or subsidy from the public treasury. The situation would still have been too confused and uncertain to give the railroad companies satisfactory credit for the time being.

Considering the menace to the railroad situation in the latter part of 1917, due to rapidly increasing expenses which were more and more beyond any control by the railroad companies, and due to the extreme difficulty of obtaining increases in rates promptly enough or large enough to meet necessities, it is pertinent to inquire what would have happened to railroad credit but for the sustaining power of the Government through the payment of rentals for the period of Federal Control and the guaranteeing of corresponding compensation through the six months' guaranty period thereafter. To be sure, the railroads subsequent to the guaranty period went through two or three years of disappointing earnings and impaired credit, but these difficulties would have been far more pronounced and recuperation would have been much slower if railroad credit had suffered the additional shocks and uncertainties which would have arisen in the absence of government intervention.

The fact that the Government took possession and control of the railroads served to divert and confuse the public thought on the subject. The public saw the increases in railroad costs and the heavy charges on the public treasury. It therefore concluded that these things were due to the fact that the Government had had control of railroad and other transportation systems. It should have concluded that these things were due to WAR and that these, or equivalent burdens, if not greater burdens, would have been borne by the rail-

road companies, their security holders and the public, if the railroad companies had continued to operate their properties.

No scheme could have been devised to relieve the public treasury of the cost to it of Federal Control without transferring that burden in some other form to the public or to railroad security holders or both. So far as earlier or greater rate increases might have lifted the burden from the Treasury, the cost would have fallen on the public in the form of rates and, under the peculiar conditions, probably with greater disturbance to business. If abstention from Federal Control could have relieved the public treasury, heavy loss would have fallen on the railroad security holders to whatever extent they could not transfer the burden to the public through increased rates.

The burden was there. It was part of the War and was paid in substantial part by taxation, which is not an unusual way of meeting war burdens.

CHAPTER XVII

THE RAILROADS AFTER THE END OF FEDERAL CONTROL

Retransfer of Properties to the Carrier Corporations.

As will be explained more fully below, Congress adopted, and President Wilson approved on February 28, 1920, comprehensive and constructive transportation legislation known as the "Transportation Act, 1920." It was on account of the wish of Congress to have time to complete this legislation prior to the termination of Federal Control that the President abandoned his announced purpose of returning the railroads to private control on December 31, 1919, and continued such possession and control for two months longer, under increasing disadvantages to the Railroad Administration.

The act also contained numerous important provisions dealing with the retransfer of the railroads to the owning corporations at 12:01 A.M., March 1, 1920, the time fixed in the President's Proclamation of December 24, 1919.¹

Serious misgivings were entertained that upon the expiration of Federal Control all intrastate rates which had been prescribed by the Railroad Administration would cease to have validity as against the much lower pre-war intrastate rates which, generally speaking, had been established by State authority. It was also feared that even

¹ These portions of the act contained elaborate provisions for the transfer to the Secretary of War of government-owned boats on inland waterways; for the liquidation and winding up of all matters arising out of Federal Control, \$200,000,000 being appropriated therefor in addition to the appropriations already made; for adjusting compensation with carriers entitled to just compensation under the Federal Control Act, but which had not made contracts therefor; for protecting from operating deficits not experienced in the test period the so-called "short lines" which had operated their own railroads during any part of the period of Federal Control; for the bringing against an agent of the President of actions based on causes of action arising out of Federal Control and payment of judgments; and for the Government refunding for a period of ten years at 6 per cent interest the indebtedness of carriers to the Government for additions and betterments or otherwise arising out of Federal Control. Provision was also made for additional loans to the carriers, and the sum of \$300,000,000 was appropriated therefor.

if the Director General's intrastate rates did not automatically lose their validity many of them might be promptly reduced by the State authorities. The Transportation Act provided, therefore (Section 208), that the rates effective February 29, 1920, should continue in effect until changed by Federal or State authority, but should not be reduced prior to September 1, 1920, unless such reduction was approved by the Interstate Commerce Commission.

Liquidation of Federal Control.

Pursuant to the provisions of the Transportation Act, 1920, the Railroad Administration continued in existence to make settlements with the carrier corporations. John Barton Payne succeeded the writer as Director General on May 18, 1920, and held the office and was in charge of the liquidation until March 28, 1921, when he was succeeded by James C. Davis.

The great bulk of the actual liquidation was effected by Mr. Davis. Indeed the matters involved were of such a character that they were not ripe for disposition until after Mr. Davis took office.

An admirable record was made by Mr. Davis in discharging to virtual completion the stupendous task of liquidating an undertaking of such unprecedented proportions and complications. His report to President Coolidge for the year ending December 31, 1924, is an illuminating description of the problems of liquidation and of the manner in which they were solved.

Upon Mr. Davis' resignation, January 1, 1926, the comparatively small matters remaining for disposition were virtually placed in the hands of the Treasury Department for disposition, A. W. Mellon, Secretary of the Treasury, being appointed Director General of Railroads.

*The Six Months' Guaranty, Its Cost to the Public Treasury,
and the Rate Increase.*

To give the Interstate Commerce Commission time to investigate, prescribe and make effective a rate structure for private operation under post-war conditions, the Transportation Act guaranteed an income, for the six months of 1920 from March to September, to the carriers which had been under Federal Control. This guaranty assured to each of such carriers a net railway operating income equal to one-half of the annual compensation to which the carrier was en-

titled during the period of Federal Control, it being provided that if during the guaranty period a particular carrier earned more than the amount guaranteed the excess should be paid to the United States. The act provided in effect that for the guaranty period the maintenance which the carriers could charge to operating expenses should not exceed an average half-year's maintenance of the same carrier during the three year test period ending June 30, 1917, with due allowance for difference in prices, wages and use. The allowance for maintenance as well as the adjustment and restatement of the operating expense and revenues of each carrier for the guaranty period were subjected to the supervision and control of the Interstate Commerce Commission.

The operations of the carriers during the six months of the guaranty period showed extremely unsatisfactory results and, as had been anticipated, called for large payments by the Government under the guaranty. It was not practicable for the Interstate Commerce Commission to put into effect the increased rates until September 1, the expiration of the guaranty period. It was necessary to expedite action on the problem, to an extent unprecedented in time of peace, in order to make the rates effective even at that time. In making rates to deal adequately with the situation for carriers under private control, the problem was different from the President's problem of initiating rates during and for the purposes of Federal Control. For those purposes he could, and was expected to, initiate such rates upon the theory that the transportation systems were, as indicated in Section 10 of the Federal Control Act of March 21, 1918, "being operated under a unified and coördinated national control and not in competition." But upon return of private control, the railroads were not under national control or unified or coördinated and were in competition. Hence the rates had to be based on that changed condition. The Commission therefore had to consider what differences should be made in the rate increases in different parts of the country. This required great consideration and resulted in different percentages of increase for freight traffic in the East, the South, and the West, the West being subdivided into two separate sections.

The cost of operation during the guaranty period was heavily increased because the Labor Board, a fact-finding agency created by the Transportation Act, reported in favor of increasing wages of railroad employees, effective May 1, 1920, by amounts aggregating

about \$618,000,000 per year. While this report was merely advisory, the railroad companies concluded that under the conditions prevailing they should increase wages accordingly and did so. Thus this heavy additional burden began to be operative four months before the new rates could take effect.

A vast number of questions arose as to the construction and application of the various provisions of the guaranty legislation and particularly with reference to the amount of maintenance that the railroads were entitled to charge to their operating expenses during the guaranty period. Most of these matters had been disposed of by December 1, 1926, and as of that date the Interstate Commerce Commission estimated that the total demands upon the Federal treasury for making good the six months' guaranty were approximately \$530,468,000.

Here also it is to be borne in mind that this cost to the public treasury was due to the fact that the rate increases could not be made effective in time to meet adequately the railroad operating expenses of the period. If sufficient increases in rates could have been effective at the beginning of the guaranty period there would have been no cost to the public treasury, but the public would nevertheless have had to pay the cost. For the guaranty period, as well as for the Federal Control period, the question of cost to the public was indicated by the total operating cost, rather than by the manner of meeting that cost, whether altogether through transportation rates or partly in that way and partly out of the public treasury.

Another feature which contributed to the heavy operating burden in the six months of the guaranty period was the extensive unauthorized strikes of switchmen which seriously hampered the conduct of operation and produced an unprecedented degree of congestion.

Emphasis should be laid in this connection upon the extremely heavy burdens which were placed upon the Interstate Commerce Commission by the performance of the numerous functions with which it was charged in connection with the guaranty period after Federal Control. Despite the other very important responsibilities placed upon the Commission by the Transportation Act, in addition to the heavy responsibilities which had rested upon it even before the War, the Commission developed its organization to discharge its duties with reference to the settlement of the guaranty period and performed those difficult tasks in a highly creditable manner.

The New Legislative Policies.

The need for comprehensive and constructive railroad legislation had begun to be generally understood prior to Federal Control. This was shown by President Wilson's recommendation for a comprehensive study of the entire subject and by the appointment for that purpose of the Newlands Joint Committee, referred to in Chapter I, and by the work of that committee, although that work remained unfinished on account of the Government's taking possession and control of railroad and other transportation systems. This need was further emphasized by President Wilson's message to Congress in December, 1918, referred to in Chapter V. Throughout Federal Control the impression continued to develop that the public not only had a vital interest in the success of the railroads but had a positive responsibility to promote that success, and that it was contrary to its own interests to adhere to the policy which had prevailed prior to the War of regarding the railroads merely as subjects for restraint and limitation without affirmative thought for their welfare.

The outcome of the development of these sentiments was that the corner-stone of the Transportation Act was the conception that the Interstate Commerce Commission on behalf of the Federal Government had an affirmative responsibility for the railroad situation. The Transportation Act required the Commission to initiate such rates for the carriers as a whole, or by rate territories, as, under efficient management, would yield, as nearly as might be, a fair return upon the aggregate value of railway property. The act in this connection provided that any company earning more than 6 per cent on the value of its property should pay one-half of the excess to the Government, the fund thus arising to be employed under the direction of the Interstate Commerce Commission for loans to railroad companies. The act also empowered the Commission to see that intrastate rates were not so low as to create a burden upon interstate commerce.

Before the War there had been the general conception that the more competing railroads were constructed, the better for the public interest. But the Transportation Act proceeded upon the new conception that it was a disadvantage to the public to have more railroads than were needed to handle the business of the country and to afford a reasonable amount of constructive competition, and there-

fore provided that no additional railroads could be constructed except upon the issue by the Interstate Commerce Commission of certificates of public convenience and necessity.

As a result of the new conception embodied in the Transportation Act, it wrought a profound modification in the application of the anti-trust laws to the railroad companies. Those laws as applied up to that time had had the effect of preventing consolidation or any form of combination between railroad companies engaged in any substantial competition with each other. The Interstate Commerce Act had prohibited any pooling of traffic or earnings by competing railroad companies. The Transportation Act, however, specifically authorized pooling when found by the Interstate Commerce Commission to be in the public interest and specifically directed the Commission to promote the consolidation of the railroads of the country into a limited number of systems and also empowered the Commission to approve and authorize combinations of railroads through lease or stock ownership or any method falling short of complete consolidation of ownership and operation, if the Commission should find such arrangements to be in the public interest. The act further provided that carriers affected by any such order of the Commission should be relieved from the operation of both the Federal and the State anti-trust laws and other restraints or prohibitions in so far as necessary to act in conformity with the order.²

The act also made provision for close supervision by the Interstate Commerce Commission of the issues of stocks, bonds and other securities by the railroad companies and further created a Labor Board to find the facts and report its decisions upon the merits of discussions between railroad managements and railroad employees as to questions affecting wages and working conditions.

On the whole this act expressed a revolution in the attitude of the public toward railroad regulation. The railroad companies by the effective service they have given since the War have fully justified the new legislative attitude thus established.

² The writer in numerous public addresses in 1919 urged the desirability of extensive railroad consolidation and also of the Government adopting an affirmative and not merely a restrictive policy of railroad legislation. Senator A. B. Cummins, now deceased, then Chairman of the Interstate Commerce Committee of the Senate, took the lead, among the members of the Senate and House, in public advocacy of railroad consolidation.

Inherent in this new legislation was the idea that private control and operation of railroads under effective but constructive public regulation, and not government ownership or operation, was the policy of the country.

Post-war Improvement over Pre-war Private Operation.

Since the War the railroads, like other forms of industry, have arrived at much more satisfactory operating conditions than were possible during the war period or immediately thereafter, and indeed have realized much greater efficiency than they ever realized in the pre-war period. The railroad companies have responded admirably to the new spirit expressed in the Transportation Act, have arrived at more complete and cordial understanding with the public, have shown increasingly careful attention to relations with employees and have rendered transportation service more expeditious, reliable and convenient than it was before the War.

Post-war Operation of the Railroads under Private Control.

The railroads went back to private control on March 1, 1920. The first six months were under the government guaranty already explained. Many of the railroad managers were intensely dissatisfied with the labor situation, and particularly those upon whose railroads certain labor organizations had been recognized during Federal Control for the first time. Friction promptly developed between the managements and these labor organizations. A period of two or three years was involved in clarifying this situation. The Labor Board, which had been created by the Transportation Act, authorized heavy increases in wages in 1920, aggregating over \$618,000,000 per year, and later approved substantially most of the working conditions which the Railroad Administration, having found in effect more or less on numerous railroads, had extended to all; but the Labor Board disapproved certain particularly fundamental working conditions which the Railroad Administration in 1918, under pressure of the War, had extended in this nation-wide manner. These are referred to in Chapter XIV on Labor. In 1921 the Labor Board sanctioned substantial reductions in wages effective July 1. The railroads were on the verge of serious strikes on this account, but for the time being they were averted. In 1922, however, a further reduction in

wages of the shopcrafts by the Labor Board precipitated a strike of the organized shopcrafts throughout the country. Some of the railroad companies made adjustments with the shopcrafts' unions on their roads and thereby perpetuated the recognition of those unions. Other railroads continued to fight the strike with the result that the shopcrafts lost on many railroads the status attained during the period of Federal Control. On many of the railroads there have developed "company" unions of employees in various branches of service in lieu of the national labor unions which in 1918 had secured government recognition on all the railroads. But the four national brotherhoods of train and engine men still retain their recognition and their contracts on practically all the railroads.

The Labor Board was abolished in 1926. It had only advisory powers, but in general its advisory decisions were accepted. It had to function through such an extremely troubled period of post-war readjustment, that it made enemies among both the railroad companies and the labor unions. Its abolition resulted from this dissatisfaction. Congress established instead a Board of Mediation, which is now functioning and which endeavors, when mediation and conciliation fail, to encourage arbitration of disputes between the railroad managements and railroad labor.

Although the Railroad Administration endeavored, as the end of Federal Control came near, to shape administrative procedure more and more to facilitate the transition back to private control, the railroad managements had many perplexing problems of readjustment besides the labor problem. One of the most acute problems was the revenue situation. After the troubled year 1920 with its readjustments and its serious unauthorized strikes which developed unprecedented congestion in the handling of an extraordinarily heavy traffic, the railroads encountered in 1921 a sudden slump in business even more pronounced than that which confronted Federal Control in the first six months of 1919. It was no more practicable for the railroad companies or the Interstate Commerce Commission to initiate an additional rate increase in the face of a heavy slump in business in 1921 than it had been for the United States Railroad Administration in 1919. As a result, the net railway operating income in 1921 was alarmingly low. This had been partially relieved by the reduction of wages put into effect upon the basis of the Labor Board's report in 1921. Such reductions were at the rate of \$412,000,000 per year,

but were not effective until the first day of July, so that it affected only the second half of the year's operations.

Late in the year 1921, at the instance of the Interstate Commerce Commission, the western railroads made reductions of 10 per cent or more on grain and live stock and in the spring of 1922 the Commission required the railroads throughout the country to make reductions of 10 per cent on all freight traffic which had not already been reduced at least to that extent.³ These rate reductions substantially diminished railroad revenue, particularly in the West. Thus the railroads went through two or three years of extremely disquieting readjustment with seriously inadequate returns, an inevitable incident to the economic convulsions which followed the War.

As an indication of the fluctuating conditions with which the railroads have been confronted since the end of Federal Control, it is interesting to note the annual rate of return upon the investment in road and equipment as compared with the average year of the test period (three years ended June 30, 1917).

The approximate rate of return per annum upon this investment for the test period was 5.25 per cent.

For the year 1920, the first two months were under Federal Control, the following six months were under the Federal guaranty, and only during the last four months of the year were the railroads operating on their own responsibility. The year was extremely difficult for reasons above suggested. The rate of return indicated by the actual net railway operating income for the entire year was only nine one-hundredths of one per cent, but for eight months of the year the carriers were protected against such unfavorable results by having the rental for the first two months and the guaranty for the next six. For the years 1921 to 1926, both inclusive, the rate of return on the investment in road and equipment has been as follows:⁴

<i>Year</i>	<i>Rate of Return</i>
1921	3.07
1922	3.83
1923	4.66
1924	4.54
1925	5.09
1926	5.36

³ *Reduced Rates, 1922*, 68 I.C.C. 676.

⁴ These percentages of return would be somewhat reduced if working capital of material and supplies and cash were included in the investment.

The railroad companies have raised and expended exceptionally large amounts in the betterments of their properties, in the development of labor saving machinery and devices, and in the promotion generally of greater efficiency, having made net capital expenditures for this purpose of about \$3,600,000,000 in the six years from 1921 to 1926 both inclusive, thus increasing their investment by about 20 per cent. The nation-wide aspects of freight car distribution and transportation, which were so clearly emphasized during the war period, have received the closest attention, with the most gratifying results. The Car Service Division of the American Railway Association which is under the presidency of R. H. Aishton, who served as Regional Director for the Railroad Administration throughout the War, has achieved remarkable success. As a result of the betterment of the railroads and their equipment and of the constant vigilance of their managements, car shortages which were the rule in busy seasons of the years prior to the War have almost disappeared. And there is general testimony to the effect that the promptness and reliability of railroad transportation are far greater than they ever were in the pre-war period under private control.

CHAPTER XVIII

GENERAL COMMENTS ON FEDERAL CONTROL

Psychology Incident to Federal Control.

THE student of Federal Control will, of course, consider the great mass of public expressions in regard to it in the years during and immediately following that undertaking, as these expressions were evidenced in addresses, newspaper and magazine articles, statements before Congressional Committees, *et cetera*. In doing this he should make allowance for the special psychology which developed on that subject.

During the period of this country's participation in the War, there were most far-reaching interferences with ordinary affairs of life, both domestic and business. People were called on to limit the character and quantity of their food. They were called on to save coal and to diminish their use of electric light on that account. They were called on to invest their savings in government bonds. Business in lines of enterprise not essential to the conduct of the War was designedly hampered so as to avoid consumption of material and labor in non-essential activities. Business engaged in the production of war necessities, or materials relating directly or indirectly thereto, was subject to searching regulations and restrictions. The facilities for passenger travel were restricted by eliminating a large mileage of non-essential passenger trains; no new passenger cars or dining cars were constructed; and yet the volume of passenger travel was much increased, so that railroad travel was distinctly less comfortable throughout 1918 than had been the case prior to the War. These restraints and unprecedented interferences were submitted to by the public with patriotism and with a surprisingly small amount of complaint or criticism until the Armistice. But then there sprung up at once throughout the country the most pronounced reaction against government interference in business. Intense desire was manifest on every hand that the Government retire from these exceptional interferences with business at the earliest possible moment.

Federal Control of railroad and other transportation systems constituted the most concrete and all-pervasive evidence of government

interference in business that could be found in the country. As a result, Federal Control became the most obvious symbol of government participation in non-governmental affairs. The situation was intensified by the continuance of government control of the railroads for a period of nearly sixteen months after the Armistice. The public wanted, and the Congressional leaders insisted upon, the continuance of Federal Control for that period of time to give an opportunity for deliberate and comprehensive railroad legislation, but none the less the public and Congress resented this temporary continuance of that control. The Railroad Administration became the target of all the public dislike for government interference in business, in addition to being the target for countless objections in instances where changes in railroad methods brought about by Federal Control interfered with some established pre-war habit or relationship.

On account of the endless ways in which railroad activities were interwoven into the business and domestic affairs of the people, there were innumerable ways in which the changes brought about tended to cause friction and dissatisfaction. The principle of standardizing railroad wages, which was adopted under the war conditions of 1918, operated to make wages for railroad employees in many of the more rural parts of the country much higher than other local wage levels. Particularly was this true as to colored railroad labor in the South. The interruption of ordinary pre-war methods of handling business, such as declining to furnish cars for certain forms of non-essential traffic, refusing permits to handle certain forms of traffic, sending less-than-carload freight only on certain days of the week, were novel and disturbing to many shippers. Shippers having control of large volumes of traffic felt the loss of the leverage which they believed they could enjoy if the railroads were again in competition. The vigilant efforts of the Railroad Administration to get the most favorable prices for materials and supplies were not gratifying to many persons interested in the sale of materials and supplies. The decision of the Railroad Administration not to renew fire insurance policies on railroad properties but to carry the insurance itself was naturally distasteful to those whose business was thereby affected. The sum total of countless individual instances of irritation or friction of the varied sorts suggested powerfully supplemented the general feeling of resentment toward government interference in business and contributed to the crystallization of all such feelings into a positive

sentiment of hostility to Federal Control of railroads, the one remaining example after the Armistice of continued government participation in the internal business affairs of the country.

It was also natural that the executives of the railroad corporations should feel a pronounced dislike for the conception of Federal Control. They would have been more than human if they had welcomed their exclusion from the managements of the railroad corporations to which managements they had, generally speaking, devoted the whole of their business lives, and in which they hoped to round out their careers. They could not but feel concerned at the extension of the recognition of labor unions. They were probably disturbed by the recommendation made by the Railroad Administration in the early part of 1919 for a definite extension of Federal Control to put the Railroad Administration in position where it could plan and carry out improvements despite the chaotic post-war conditions and be of assistance in the stabilization of business through that difficult period. The railroad executives had a profound and sincere conviction that government ownership and operation of railroads would be fundamentally opposed to the public interest, and in all probability they construed the Railroad Administration's recommendation for an extension of Federal Control as a distinct move for permanent government ownership and operation.

When the railroad corporations, against their will, had been out of control of the railroads for a period of upwards of two years, it was merely a response to one of the most elemental human instincts, for many of their most outspoken managers, upon their resuming control and responsibility for railroad operation, to place the maximum of blame upon the Railroad Administration for every difficulty that was the outgrowth of the War.

With all these factors and influences converging upon Federal Control, it naturally resulted that there was a widespread will to criticize and a very definite motive for criticism, especially since any criticism of the Railroad Administration could be made useful as an argument against government control and operation of railroads. In these circumstances the Railroad Administration was subject to the working of the principle that the exception is more potent than the rule; that extreme cases make more publicity and sentiment than the general average condition. In the millions of individual instances of transactions and relationships growing out of

Federal Control there might have been 10,000 or 50,000 or 100,000 specific instances which were extreme in their character. These could be emphasized until they were regarded as typical instead of exceptional. In other words, the specific things criticized were taken to be an accurate expression of the entire situation. Hence the conditions facilitated and encouraged exaggeration.

Things seemed to get to the point where no charge was too extreme to be believed. The more extreme the charge the greater the presumption, apparently, that the charge was true without necessity for proof. The country went through this phase during and after the Armistice and in a very pronounced way in the first year or two following Federal Control.

As that period has receded and as a better perspective is obtained, it has become apparent that the general average performance of Federal Control, despite numerous extreme individual instances, was remarkably close to the general average performance prior to Federal Control and that the subsequent highly creditable performance of the railroads, showing marked improvement over Federal Control and also over pre-war private control, has not been peculiar to the railroad situation but has found its counterpart in industry generally. The increased efficiency in private industry in the last few years above the degree of efficiency shown by private industry during the War appears to have been even greater than the increased efficiency of the railroads in the last two or three years under private management over the degree of efficiency shown by the Government during the period of Federal Control.

This matter of efficiency of Federal Control of railroads as compared with private control of railroads and as contrasted with results in private industry is discussed in Chapter XIV on Labor and is also referred to in Chapter XVI on the Cost of Federal Control.

As an illustration of the difference between the volume of criticism when there is a will to criticize and when there is not, reference may be made to the shortage of freight cars in the grain regions in the West and Northwest in the summer and early fall of 1919 under Federal Control and in the corresponding period of 1920 under private control. The car shortages in this region in 1920 after the resumption of private control were very much greater than they were in 1919 under government control. But the public criticism in

1919 under government control was far greater than in 1920 under private control. The will to criticize was present in 1919 and was lacking in 1920.

Federal Control Not a Reliable Argument Either For or Against Government Ownership and Operation.

As an introduction to comment on this topic the writer will state that he has uniformly held the opinion that permanent government ownership and operation of railroads in this country would not be in the public interest. He has believed that the initiative and rivalry between a number of privately owned and operated railroad systems, subject to adequate public regulation, would conduce much more to the public interest and the public satisfaction, and, moreover, would save the Government itself from a task involving heavy and injurious administrative burdens and eventually tending to political demoralization. He has also believed that this country is far too vast, and its railroad mileage too extensive, to admit of the satisfactory concentration, in time of peace, of all railroad operations under a single direction. The writer had entertained these views and publicly expressed them on many occasions prior to Federal Control. During Federal Control and while he was Director General of Railroads, he made a large number of public addresses throughout the country in which these views were reiterated. He has continued to hold and to express these views since the end of Federal Control. He believes that the system exemplified in this country, of private ownership under public regulation, gives initiative, elasticity, efficiency, responsiveness to public needs and a minimum of strain on the political system of our Government. He does not believe these results could be realized to anything like the same extent under permanent government ownership and operation. What he says, therefore, on the topic here discussed is not tinged by any desire to promote government ownership and operation of railroads in this country.

The important proposition which deserves to be stressed in this connection is that the methods and results of Federal Control of railroads do not constitute a sound argument either for or against government ownership and operation. Federal Control of railroads strikingly shows the economic burdens and dislocations caused by war, but it throws no reliable light on the merits or demerits of government ownership and operation of railroads in time of peace.

Federal Control had neither the advantages nor the disadvantages of permanent government ownership and operation.

It did not have the advantage of permanency and certainty. It was conducted, after the Armistice, through months of uncertainty as to how long it could continue and thereafter with a certain knowledge that it would be discontinued within six months. Therefore it could not carry out, or even make, comprehensive plans for the betterment of the railroads. It could not make those readjustments of terminals, shops, *et cetera*, which would have realized the greatest unification with the resulting economies. In all matters of improvements it had virtually to adopt a policy of marking time, a thing detrimental to any enterprise public or private.

By reason of the almost immediate termination which was in prospect, Federal Control could not enjoy the vitally important condition of that sense of tranquillity on the part of managements and employees which arises from the feeling that there is a permanent and continuing authority over them. Until the Armistice, both the managements and the employees were intent upon winning the War and that thought prevailed over all others. But when the Armistice came, that dominant motive disappeared overnight, and what largely took its place was a desire on the part of the managements to get back to the greater freedom of private control as soon as possible, and a divided sentiment on the part of employees, many preferring private management and many others, including the organization leaders, hoping to be able to perpetuate government operation. Such states of mind were most unfavorable to the best operating results and constituted a serious disadvantage which would not exist in the case of permanent government ownership and operation. If a railroad officer should know that in six months the present authority over him would cease to control him and would be superseded by a different and permanent authority, he would be more than human if he took as great an interest in pressing for the realization of all the policies of the temporary authority as he would do if the authority were permanent and on that account had a continuing control over him. If an employee's mind were filled with speculations as to which of two régimes would be more beneficial to him and knew that the one would disappear and be replaced by the other in a short time unless the change could be averted by legislative action, he would be in no state of mind to render as good service as he would render if all

those questions were settled. In these respects Federal Control was far from having the fundamental advantage which government ownership and operation, or any other permanent form of ownership and operation, would have. It would be extremely superficial, therefore, to assume that Federal Control enjoyed the advantages of permanent government control in peace time, and that the performance of the latter could be inferred from the performance of the former. In such circumstances it is extraordinary that throughout the period of Federal Control, even up to its last day, both managements and employees gave such good accounts of themselves and made a showing which, considering the disrupting influences of the War, compared so favorably with pre-war and post-war railroad operations, and with pre-war, war and post-war industrial activities.

Nor did Federal Control labor under certain pronounced disadvantages of permanent government ownership and operation. In the selection of personnel, Federal Control was entirely free from political influences, direct or indirect. It presented the rare case throughout of "the office seeking the man." Nobody sought his job but took it from a sense of patriotism. The effort was to get the best available material. The Railroad Administration took over skilled corps of officers and of employees who had been selected and developed by all the ability which the railroad corporations could devote to selection and training of personnel. During the continuance of hostilities, the war spirit precluded any political pressure upon the Director General and his staff to bring about changes in personnel. After the Armistice the remaining time of Federal Control was too brief to enlist the interest of political influences to seek to make changes in the personnel. The Central Staff had been selected under war conditions without a thought to politics, and its non-political character was such that it was realized that political pressure, even if made, would be unavailing. Indeed, the very brevity of the tenure of the Central Administration as well as of other branches of the Railroad Administration gave it a degree of independence with reference to political considerations which could not be enjoyed by men who were in Government positions for indefinite periods and looking to those positions for a career. Federal Control was entirely free from those political influences which in the long run may prove detrimental to permanent government operation of any business enterprise in time of peace.

Opponents of government ownership and operation of railroads have frequently seemed prone to exaggerate criticisms of Federal Control by way of argument against permanent government ownership and operation. Advocates of government ownership and operation have probably been equally prone to exaggerate commendable things which were done by Federal Control by way of argument for their position. Both sides have been in error.

In the interest of clear thinking, it is important to realize that Federal Control does not constitute a sound argument either for or against permanent peace-time government ownership and operation. What Federal Control does primarily is to illustrate in a particularly concrete and visible way the disrupting and destructive influences of war, strictly similar in effect to what would have been exemplified by private war-time control, though differing in various details.

CHAPTER XIX

CONCLUSION

FEDERAL Control of railroad and other transportation systems was undertaken as a war emergency. It was continued for nearly sixteen months after the Armistice to enable Congress to formulate and adopt a constructive program of peace-time railroad legislation, which had been badly needed even before the War. The personnel that handled the railroads during this rapidly passing period of government control was entirely made up of experienced railroad men on the railroads themselves as well as in the Regional Organizations. The Central Administration also was made up almost wholly of experienced railroad men. The selection of all personnel was entirely free from politics. There was an adequate and praiseworthy performance of the public service during the extremely difficult conditions of the War and the equally difficult and constantly changing readjustments after the Armistice. The countless complications which the novelty, suddenness and brevity of the situation presented as to matters of law, finance, accounting, purchases and public, congressional and corporate relations, were considered with care and intelligently dealt with. The special policies as to labor which were adopted by the Central Administration were dictated by the conditions created by the War and, in their controlling aspects, were mostly established prior to the Armistice. The railroads in general were maintained so as to admit of effective handling of traffic, and settlement was duly made for such undermaintenance as existed. The railroads were able, shortly after return to private control, to handle successfully the largest traffic on record up to that time.

The country has passed through, and is now beyond, the psychological phase where extreme and exceptional instances as to particular items of service, labor and maintenance were treated as correctly defining the real levels of Railroad Administration accomplishment. Instead, a condition of fair perspective has been reached where the work of Federal Control can be viewed in its due proportions with reference to the general average of its results and in comparison with the general average results of private railroad control prior to

the War and of private control of industry generally during the War.

The increased cost of railroad operation during the period of Federal Control was due to the War and could not have been avoided by any other means of control. If private control had been retained, the increased cost of railroad operation would still have had to be met. The War would have had to be paid for, even in the case of private control of railroads. In that event, if the entire burden could not have been placed on the public through increases in rates, it would have been met through a combination of impaired service to the public and of losses to the railroad security holders, and this would probably have forced some form of government subsidy so as to place part of the burden on the public treasury. All this would have been worked out with greatly increased confusion and uncertainty to the public and to railroad security holders.

The effect of Federal Control was to provide, as to the country's war needs, and as to the interests of railroad security holders, a protection which had become impracticable on the part of private control in view of the emergencies and limitations with which it was confronted. Any fairly balanced study of the situation as a whole must lead to the conclusion that in periods of extraordinary difficulty the Government's temporary operation of the railroads accomplished with credit the objects which made resort to it imperative. The war needs for transportation were met and railroad security holders were protected from a large part, though by no means all, of the injurious consequences of the War.

APPENDIX TO CHAPTER I

THIRTY-TWO PRINCIPAL RAILROAD SYSTEMS OF THE UNITED STATES

*Miles of Road Operated at December 31, 1917, and Railway
Operating Revenues for Calendar Year 1917.*

<i>System</i>	<i>Miles of Road Operated, December 31, 1917</i>	<i>Railway Operating Revenues Calen- dar year 1917</i>
<i>Eastern District.</i>		
1. Pennsylvania	11,877	\$ 490,812,519
2. New York Central	13,047	397,775,048
3. Baltimore & Ohio	5,221	142,053,197
4. Philadelphia & Reading	2,449	114,755,875
5. New York, New Haven & Hartford	2,872	100,438,518
6. Erie	2,544	84,853,778
7. Norfolk & Western	2,222	66,518,800
8. Chesapeake & Ohio	2,830	65,340,228
9. Boston & Maine	2,511	61,427,002
10. Delaware, Lackawanna & Western	996	57,437,388
11. Lehigh Valley	1,449	53,366,859
12. Wabash	2,519	40,471,999
13. Delaware & Hudson	928	30,142,285
Total Eastern District	51,465	\$1,705,393,496
<i>Southern District.</i>		
14. Atlantic Coast Line ¹	6,163	\$114,457,130
15. Louisville & Nashville	7,165	52,652,023
16. Southern	10,488	137,000,787
17. Illinois Central	7,353	122,092,612
18. Seaboard Air Line	3,714	30,827,513
Total Southern District	34,883	\$457,030,065
<i>Western District.</i>		
19. Great Northern ²	8,429	\$ 88,822,124
20. Northern Pacific ²	7,818	96,846,496
21. Chicago, Burlington & Quincy ²	12,059	144,050,326

¹ Atlantic Coast Line owned 51 per cent of the capital stock of the Louisville & Nashville.

² Great Northern and Northern Pacific each owned over 48 per cent of the capital stock of the Burlington, or, together owned over 97 per cent thereof.

<i>System</i>	<i>Miles of Road Operated, December 31, 1917</i>	<i>Railway Operating Revenues Calen- dar Year 1917</i>
22. Southern Pacific	11,337	194,086,346
23. Atchison, Topeka & Santa Fe	11,992	170,763,847
24. Union Pacific	9,576	145,389,520
25. Chicago & North Western	10,159	130,867,981
26. Chicago, Milwaukee & St. Paul	10,708	115,134,016
27. Chicago, Rock Island & Pacific	8,299	89,608,723
28. Missouri Pacific ³	7,348	78,472,861
29. St. Louis-San Francisco	5,321	60,010,014
30. Canadian Pacific (in U.S.) ⁴	5,351	43,708,460
31. Missouri, Kansas & Texas	3,869	43,344,151
32. Denver & Rio Grande ³	2,790	29,056,258
Total Western District	115,056	\$1,430,161,123
<i>Summary.</i>		
Eastern District	51,465	\$1,705,393,496
Southern District	34,883	457,030,065
Western District	115,056	1,430,161,123
Total 32 Systems	201,404	\$3,592,584,684
Total United States	261,792 ⁵	\$4,115,413,057
Per cent 32 Systems to U.S.	76.9%	87.2%

³ Missouri Pacific owned 31 per cent of Common and Preferred Stock of Denver & Rio Grande.

⁴ Includes 256 miles in New England.

⁵ Includes 2,035 miles in Canada and 52 miles in Mexico controlled by companies in United States.

Note: The foregoing table is based on the grouping of railroads contained in the *Statistics of Railways in the United States for 1917*, prepared by the Interstate Commerce Commission.

APPENDIX TO CHAPTER II

The resolutions in full which were subscribed to by the respective railroad companies whereby they submitted themselves to the direction of the Railroads' War Board were as follows:

Resolved, That Commissioner Willard be requested to call upon the railroads to so organize their business as to lead to the greatest expedition in the movement of freight.

Now, therefore, be it

Resolved, That the railroads of the United States, acting through their chief executive officers here and now assembled, and stirred by a high sense of their opportunity to be of the greatest service to their country in the present national crisis, do hereby pledge themselves, with the Government of the United States, with the governments of the several States and one with another, that during the present War they will coördinate their operations in a continental railway system, merging during such period all their merely individual and competitive activities in the effort to produce a maximum of national transportation efficiency. To this end they hereby agree to create an organization which shall have general authority to formulate in detail and from time to time a policy of operation of all or any of the railways, which policy, when and as announced by such temporary organization, shall be accepted and earnestly made effective by the several managements of the individual railroad companies here represented.

Resolved, That the following form of organization for all of the railways of the United States to coöper-

ate with the Government in the conduct of the War be adopted:

1. That the whole problem of co-operation with the Government be committed to the present special committee on national defense of the American Railway Association. This involves making the commission on car service a subcommittee of the special committee, as has already been done with the committees on military passenger tariffs, military freight tariffs, military equipment standards, and military transportation accounting.

2. That the special committee be enlarged by additions to a total of approximately 25 members.

3. That an executive committee, selected from the 25 members of the special committee on national defense, consisting of the chairman of the special committee, who shall also be chairman of the executive committee and four other members to be selected by him, be created, such executive committee to sit in Washington in frequent or if necessary continuous session.

4. That Mr. Daniel Willard, as chairman of the Advisory Commission of the Council of National Defense, be *ex officio* a member of the executive committee.

That the Interstate Commerce Commission be invited to designate one of its members to be *ex officio* a member of the executive committee.

5. That the railways agree to the

direction of the executive committee of five in all matters to which its authority extends, as expressed in the resolution heretofore adopted, and to which we hereby subscribe; and that the general secretary of the American Railway Association be in-

structed to secure the execution by signature of all American railways.

The executive committee of five provided for in paragraph 3 of the foregoing resolutions came to be generally known as the Railroads' War Board.

Chairman Fairfax Harrison of the Railroads' War Board gave out the following statement in regard thereto on April 11, 1917:

The plan of operation worked out here is in distinct contrast to that adopted in England at the outset of the War. There the Government immediately assumed the responsibility for the operation of the railroads and exercised its authority to that extent through a committee composed of the heads of the principal lines. The Government guaranteed that the net earnings of the companies would continue to be what they had been before the War started.

In this country the plan is that the Government shall advise the railroads what service it requires and the responsibility will be on the railroad managers to provide that service. When working to that end the railroads of the country will be operated practically as one system.

It is planned to place the responsibility upon experienced railroad officers for producing results and the

Government's only function is to determine what the requirements are. It is the belief of the railroad companies that this will not only work for efficiency of service but for economy of cost as well. The above plan of co-operation between the Government and the railways is most desirable as the latter are keenly appreciative of this opportunity to demonstrate to the country at large the value in time of war of railroads with elastic management.

It is believed that the transportation companies will be able to afford to the Government expeditiously all the service it may require without substantial interference with the commercial interests of the country. The Government's business will receive preferential movement, but it is not expected that ordinary traffic will experience abnormal delays.

ORGANIZATION OF RAILROADS' WAR BOARD

Executive Committee.

Fairfax Harrison, Chairman,
President, Southern Railway System.

Howard Elliott, Chairman, Committee on Intercompany Relations, New York, New Haven & Hartford Railroad.

Hale Holden, President, Chicago, Burlington & Quincy Railroad.

E. E. Clark, Interstate Commerce Commission, *ex officio*.

Julius Kruttschnitt, Chairman Executive Committee, Southern Pacific Company.

Samuel Rea, President, Pennsylvania Railroad.

Daniel Willard, Chairman, Advisory Commission, Council of National Defense, *ex officio*.

General Committee.

Fairfax Harrison, General Chairman.

George Hodges, Assistant to General Chairman.

J. E. Fairbanks, Secretary.

This General Committee had six departments designated as Northeastern Department, Eastern Department, Southeastern Department, Central Department, Southern Department, and Western Department.

The organization of Railroads' War Board had the following Subcommittees:

Commission on Car Service, C. M. Sheaffer, General Superintendent Transportation, Pennsylvania Railroad, Washington, D. C., Chairman.

Military Equipment Standards, J. T. Wallis, General Superintendent Motive Power, Pennsylvania Railroad, Altoona, Pa., Chairman.

Military Transportation Accounting, A. H. Plant, Comptroller, Southern Railway System, Washington, D. C., Chairman.

Military Passenger Tariffs, E. L. Bevington, Chairman, Transcontinental Passenger Association, Chicago, Ill., Chairman.

Military Freight Tariffs, L. Green, Vice-President, Southern Railway System, Washington, D. C., Chairman.

Materials and Supplies, H. B. Spencer, Vice-President, Southern Railway System, Washington, D. C., Chairman.

Express Transportation, D. S. Elliott, Vice-President, American Express Co., Washington, D. C., Chairman.

APPENDIX TO CHAPTER III

I

THE PRESIDENT'S PROCLAMATION OF DECEMBER 26, 1917, AND HIS STATEMENT OF THE SAME DATE

Proclamation.

Whereas the Congress of the United States, in the exercise of the constitutional authority vested in them, by joint resolution of the Senate and House of Representatives bearing date April 6, 1917, resolved:

That the state of war between the United States and the Imperial German Government which has thus been thrust upon the United States is hereby formally declared; and that the President be, and he is hereby authorized and directed to employ the entire naval and military forces of the United States and the resources of the Government to carry on war against the Imperial German Government; and to bring the conflict to a successful termination all of the resources of the country are hereby pledged by the Congress of the United States.

And by joint resolution bearing date of December 7, 1917, resolved:

That a state of war is hereby declared to exist between the United States of America and the Imperial and Royal Austro-Hungarian Government; and that the President be, and he is hereby authorized and directed to employ the entire naval and military forces of the United States and the resources of the Government to carry on war against the Imperial and Royal Austro-Hungarian Government; and to bring the conflict to a successful termination all the re-

sources of the country are hereby pledged by the Congress of the United States.

And whereas it is provided by Section 1 of the act approved August 29, 1916, entitled "An act making appropriations for the support of the Army for the fiscal year ending June 30, 1917, and for other purposes," as follows:

The President in time of war is empowered, through the Secretary of War, to take possession and assume control of any system or systems of transportation, or any part thereof, and to utilize the same, to the exclusion, as far as may be necessary, of all other traffic thereon, for the transfer or transportation of troops, war material, and equipment, or for such other purposes connected with the emergency as may be needful or desirable.

And whereas it has now become necessary in the national defense to take possession and assume control of certain systems of transportation and to utilize the same, to the exclusion, as far as may be necessary, of other than war traffic thereon, for the transportation of troops, war material, and equipment therefor, and for other needful and desirable purposes connected with the prosecution of the war;

Now, therefore, I, Woodrow Wilson, President of the United States,

under and by virtue of the powers vested in me by the foregoing resolutions and statute, and by virtue of all other powers thereto me enabling, do hereby, through Newton D. Baker, Secretary of War, take possession and assume control at 12 o'clock noon on the 28th day of December, 1917, of each and every system of transportation and appurtenances thereof located wholly or in part within the boundaries of the continental United States and consisting of railroads and owned or controlled systems of coastwise and inland transportation engaged in general transportation, whether operated by steam or by electric power, including also terminals, terminal companies, and terminal associations, sleeping and parlor cars, private cars and private car lines, elevators, warehouses, telegraph and telephone lines, and all other equipment and appurtenances commonly used upon or operated as a part of such rail or combined rail-and-water systems of transportation; to the end that such systems of transportation be utilized for the transfer and transportation of troops, war material, and equipment, to the exclusion so far as may be necessary of all other traffic thereon; and that so far as such exclusive use be not necessary or desirable such systems of transportation be operated and utilized in the performance of such other services as the national interest may require and of the usual and ordinary business and duties of common carriers.

It is hereby directed that the possession, control, operation, and utilization of such transportation systems, hereby by me undertaken, shall be exercised by and through William

G. McAdoo, who is hereby appointed and designated Director General of Railroads. Said director may perform the duties imposed upon him, so long and to such extent as he shall determine, through the boards of directors, receivers, officers, and employees of said systems of transportation. Until and except so far as said director shall from time to time by general or special orders otherwise provide, the boards of directors, receivers, officers, and employees of the various transportation systems shall continue the operation thereof in the usual and ordinary course of the business of common carriers, in the names of their respective companies.

Until and except so far as said director shall from time to time otherwise by general or special orders determine, such systems of transportation shall remain subject to all existing statutes and orders of the Interstate Commerce Commission and to all statutes and orders of regulating commissions of the various States in which said systems or any part thereof may be situated. But any orders, general or special, hereafter made by said director shall have paramount authority and be obeyed as such.

Nothing herein shall be construed as now affecting the possession, operation, and control of street electric passenger railways, including railways commonly called interurbans, whether such railways be or be not owned or controlled by such railroad companies or systems. By subsequent order and proclamation, if and when it shall be found necessary or desirable, possession, control, or operation may be taken of all or any part of such street railway systems,

including subways and tunnels; and by subsequent order and proclamation possession, control, and operation in whole or in part may also be relinquished to the owners thereof of any part of the railroad systems or rail-and-water systems, possession and control of which are hereby assumed.

The director shall, as soon as may be after having assumed such possession and control, enter upon negotiations with the several companies looking to agreements for just and reasonable compensation for the possession, use, and control of their respective properties on the basis of an annual guaranteed compensation above accruing depreciation and the maintenance of their properties equivalent, as nearly as may be, to the average of the net operating income thereof for the three-year period ending June 30, 1917, the results of such negotiations to be reported to me for such action as may be appropriate and lawful.

But nothing herein contained, expressed or implied, or hereafter done or suffered hereunder, shall be deemed in any way to impair the rights of the stockholders, bondholders, creditors, and other persons having interests in said systems of transportation or in the profits thereof to receive just and adequate compensation for the use and control and operation of their property hereby assumed.

Regular dividends hitherto declared and maturing interest upon bonds, debentures, and other obligations may be paid in due course; and such regular dividends and interest may continue to be paid until and unless the said director shall from time to time otherwise by general or special orders determine; and, sub-

ject to the approval of the director, the various carriers may agree upon and arrange for the renewal and extension of maturing obligations.

Except with the prior written assent of said director, no attachment by mesne process or execution shall be levied on or against any of the property used by any of said transportation systems in the conduct of their business as common carriers; but suits may be brought by and against said carriers and judgments rendered as hitherto until and except so far as said director may, by general or special orders, otherwise determine.

From and after 12 o'clock on said 28th day of December, 1917, all transportation systems included in this order and proclamation shall conclusively be deemed within the possession and control of said director without further act or notice. But for the purpose of accounting said possession and control shall date from 12 o'clock midnight on December 31, 1917.

In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

Done by the President, through Newton D. Baker, Secretary of War, in the District of Columbia, this 26th day of December, in the year of our Lord one thousand nine hundred and seventeen, and of the independence of the United States the one hundred and forty-second.

WOODROW WILSON.

By the President:

ROBERT LANSING,
Secretary of State.

NEWTON D. BAKER,
Secretary of War.

Statement.

I have exercised the powers over the transportation systems of the country which were granted me by the act of Congress of last August because it has become imperatively necessary for me to do so. This is a war of resources no less than of men, perhaps even more than of men, and it is necessary for the complete mobilization of our resources that the transportation systems of the country should be organized and employed under a single authority and a simplified method of coördination which have not proved possible under private management and control. The committee of railway executives who have been coöperating with the Government in this all-important matter have done the utmost that it was possible for them to do; have done it with patriotic zeal and with great ability; but there were difficulties that they could neither escape nor neutralize. Complete unity of administration in the present circumstances involves upon occasion and at many points a serious dislocation of earnings, and the committee was, of course, without power or authority to rearrange charges or effect proper compensations and adjustments of earnings. Several roads which were willingly and with admirable public spirit accepting the orders of the committee have already suffered from these circumstances and should not be required to suffer further. In mere fairness to them the full authority of the Government must be substituted. The Government itself will thereby gain an immense increase of efficiency in the conduct of the war and of the innumerable activities upon which its successful conduct depends.

The public interest must be first served and, in addition, the financial interests of the Government and the financial interests of the railways must be brought under a common direction. The financial operations of the railways need not then interfere with the borrowings of the Government, and they themselves can be conducted at a greater advantage. Investors in railway securities may rest assured that their rights and interests will be as scrupulously looked after by the Government as they could be by the directors of the several railway systems. Immediately upon the reassembling of Congress I shall recommend that these definite guarantees be given: First, of course, that the railway properties will be maintained during the period of Federal Control in as good repair and as complete equipment as when taken over by the Government; and, second, that the roads shall receive a net operating income equal in each case to the average net income of the three years preceding June 30, 1917; and I am entirely confident that the Congress will be disposed in this case, as in others, to see that justice is done and full security assured to the owners and creditors of the great systems which the Government must now use under its own direction or else suffer serious embarrassment.

The Secretary of War and I are agreed that, all the circumstances being taken into consideration, the best results can be obtained under the immediate executive direction of the Hon. William G. McAdoo, whose practical experience peculiarly fits him for the service and whose authority as Secretary of the Treasury

will enable him to coördinate as no other man could the many financial interests which will be involved and which might, unless systematically directed, suffer very embarrassing entanglements.

The Government of the United States is the only great Government now engaged in the war which has not already assumed control of this sort. It was thought to be in the spirit of American institutions to attempt to do everything that was necessary through private management, and if

zeal and ability and patriotic motive could have accomplished the necessary unification of administration it would certainly have been accomplished; but no zeal or ability could overcome insuperable obstacles, and I have deemed it my duty to recognize that fact in all candor, now that it is demonstrated, and to use without reserve the great authority reposed in me. A great national necessity dictated the action, and I was therefore not at liberty to abstain from it.

WOODROW WILSON.

II

THE RAILROAD ADMINISTRATION'S CENTRAL ORGANIZATION AS FORMED IN 1918

The Central Organization, when it had finally taken shape in the early months of 1918, was as follows:

Director General: W. G. McAdoo.

Assistant Director General (formerly Chairman of Atchison, Topeka & Santa Fe Railway Co.): Walker D. Hines.

Assistant to the Director General: Oscar A. Price.

General Counsel: John Barton Payne.

Division of Finance and Purchasing: John Skelton Williams, Director.

Division of Operation (called at first the Division of Transportation): Carl R. Gray, Director (formerly President of Western Maryland Railway Co.).

Division of Traffic: Edward Chambers, Director (formerly Vice-President of Atchison, Topeka & Santa Fe Railway Co.).

Division of Labor: W. S. Carter, Director (formerly President, Brotherhood of Locomotive Firemen and Enginemen).

Division of Public Service and Accounting: Charles A. Prouty, Director (Director of Valuation Bureau

of Interstate Commerce Commission).

Division of Capital Expenditures: Robert S. Lovett, Director (formerly Chairman, Union Pacific Railroad System).

Division of Inland Waterways: G. A. Tomlinson, Director (formerly President, Duluth, Superior, Globe & Inter-Ocean Steamship Co.).

Actuary to the Railroad Administration: Theodore H. Price (Editor and Publisher of *Commerce and Finance*).

Numerous changes took place in the Central Organization of the Railroad Administration in 1919.

Walker D. Hines succeeded W. G. McAdoo as Director General. H. A. Taylor became General Assistant to the Director General. Prior to Federal Control Mr. Taylor had been General Attorney of the Erie Railroad Company, and after Federal Control became General Solicitor of the same company. George H. Parker

became Financial Assistant to the Director General. Prior to Federal Control Mr. Parker had been Assistant Comptroller of the Philadelphia & Reading Railway Company. Brice Claggett became Assistant to the Director General.

General Counsel. E. Marvin Underwood, who had been General Solicitor of the Seaboard Air Line Railway Company, and afterwards Assistant General Counsel in the Division of Law, succeeded John Barton Payne.

Division of Finance and Purchasing. John Skelton Williams resigned as Director and two separate divisions were created. Swagar Sherley, formerly Chairman of the Appropriations Committee of the House of Representatives, became Director of the Division of Finance, and Henry B. Spencer, formerly Vice-President of the Southern Railway Company, became Director of the Division of Purchases.

Division of Operation. W. T. Tyler succeeded Carl R. Gray as Director. Mr. Tyler had been up to that time the Senior Assistant Director in the Division of Operation, and prior to Federal Control had been Assistant to Vice-President of Northern Pacific Railway Company.

Division of Public Service and Accounting. Two separate divisions were created, Charles A. Prouty becoming Director of the Division of Accounts, and Max Thelen, formerly Chairman of the California Railroad Commission, becoming Director of the Division of Public Service.

Division of Capital Expenditures. T. C. Powell, formerly Vice-President of the Southern Railway Company, succeeded Robert S. Lovett.

A brief description of the jurisdiction of the various divisions is given below.

Director General. The immediate staff of the Director General's office was small, consisting of the Assistant Director General and of assistants to the Director General and to the Assistant Director General. Throughout Federal Control, but particularly in the formative period in the early part of 1918, Henry Walters, Chairman of the Atlantic Coast Line, acted in the capacity of a general advisor to the Director General. Theodore Price, Editor of *Commerce and Finance*, was the Actuary for the Railroad Administration and was also in charge of the Bureau of Suggestions and Complaints, reporting in both capacities directly to the Director General.

Division of Law. The functions of this Division are sufficiently indicated by its title. The head of the Division was the General Counsel of the Railroad Administration. Several assistants were provided to handle the numerous legal activities which were entrusted to the Division. One of the most exacting tasks of this Division was the drafting of the standard clauses for the contracts with the railroad companies, and the investigation of claims for compensation to be paid to particular railroad companies by way of rental for their railroads over and above the "standard return" (the average annual net railway operating income for the three years ending June 30, 1917). A committee was formed within the Division of Law for passing on these questions. The committee was made up of two representatives of the Division of Law, a representative of the Divi-

sion of Operation, and a representative of the Division of Public Service and Accounting. Another matter requiring a great deal of attention on the part of the Division of Law was the relations of the Railroad Administration with the "Short Lines," more fully described in Chapter X. A section was created in this Division for the protection of railroad property and property of shippers in transit, known as the "Claims and Property Protection Section."

Finance and Purchases. Problems of both finance and purchases were in the charge of the single Division of Finance and Purchasing in 1918, but in 1919 separate Divisions of Finance and of Purchases were created. The financial division, in addition to having charge of financial matters generally, had charge of fire and marine insurance. The Railroad Administration elected to carry its own fire insurance instead of renewing existing fire insurance policies, and consequently a Fire Loss and Protection Section was organized in the financial division. During 1918 matters connected with purchases were handled under the supervision of the Director of the Division of Finance and Purchasing by the Central Advisory Purchasing Committee and under that Committee there were formed the Fuel Section, the Forest Products Section, the Procurement Section and the Stores Section. When the separate Division of Purchases was created in 1919, the new Director of the Division of Purchases took over the work of the Central Advisory Purchasing Committee, of which he had theretofore been Chairman. Practically all of the members of the staffs of the purchasing and financial

branches of the organization had been railroad officials prior to Federal Control.

Division of Operation. This was at first called the Division of Transportation. It had a great variety of extremely important functions. There were a Mechanical Department for the supervision of maintenance of locomotives and cars, a Department of Engineering and Maintenance for supervision of maintenance of way and structures, a Car Service Section for the relocation and distribution of freight cars, a Safety Section, a Troop Movement Section, an Operating Statistics Section, a Telegraph Section, a Fuel Conservation Section, an Inspection and Test Section (to inspect materials entering into the construction of freight cars and locomotives ordered by the Railroad Administration), a Committee on Health and Medical Relief, and (after January 1, 1919) a Secret Service and Police Section. In addition to the foregoing functions relating primarily to railroad transportation, there was a Marine Department having supervision of all transportation by sea under Federal Control as well as of transportation under Federal Control on the Great Lakes. This Division had charge of all managerial aspects of labor problems, and was thus constantly in touch with the Division of Labor which dealt with these problems from the standpoint of the employees. With the exception of the head of the Mechanical Department and Safety Section, and, a part of the time, the head of the Operating Statistics Section, practically all members of the staff of the Division of Operation were railroad officials who were drawn directly from

active railroad service at the beginning of Federal Control.

Division of Traffic. This Division supervised both freight traffic and passenger traffic. It was particularly active in the consolidation of ticket offices, the elimination of unnecessary passenger trains, the simplification of time tables, the modification of demurrage rules and the elimination of circuitous freight routes. It was charged with the function of coördination of the work of the Railroad Administration with the work and needs of other governmental departments, acting through "Managers of Inland Traffic" appointed by it. It organized freight traffic committees throughout the country and in conjunction with the Public Service Division provided for representation of the shipping public on such committees. It was charged with the settlement of many intricate questions in the relations of the Railroad Administration with the "Short Lines." It had an Agricultural Section for the closer coördination of the agricultural development work of the railroads under Federal Control. It had an Express and Mail Section to deal with the relations with the American Railway Express Company and the relations with the Government's Postal Department. Practically without exception all the members of the staff of this Division were experienced railroad officials drawn from railroad service at the beginning of Federal Control.

Division of Labor. This Division was concerned primarily with the adjustment of labor controversies. It was charged with the function of receiving and assembling evidence bearing upon questions submitted to the Boards of Adjustment (described in Chapter XIV on Labor). The staff of this Division was made up very largely of officials drawn from the railroad labor unions. In addition the Division had a Women's Service Section to "give consideration to conditions of employment of women on railroads under Federal Control."

Public Service and Accounting. In 1918 these matters were in charge of a single Division, that of Public Service and Accounting. In 1919 two separate divisions were created, a Division of Public Service and a Division of Accounts. In the latter part of 1919 the subject of accounts was placed under the direction of George H. Parker, comptroller, the Division of Accounts being abolished.

Division of Capital Expenditures. This Division had supervision of all capital expenditures made during Federal Control upon railroads under Federal Control, determining the character and extent of such expenditures. The staff of this Division was drawn almost entirely from experienced railroad officials.

Division of Inland Waterways. This Division had charge of the development and provisional operation of lines of boats on the New York State barge canal, the lower Mississippi River and the Warrior River.

DESCRIPTION OF THE REGIONS

On January 18, 1918, the railroads were divided into three regions as follows:

Eastern Region, consisting, broadly, of the railroads in "Official Classification Territory," that is, east of Chicago and the Mississippi River, north of the Ohio River, and north of and including the Chesapeake & Ohio and Norfolk & Western Railroads. Regional Director, A. H. Smith, President of New York Central, with office at New York.

Western Region, consisting, broadly, of the railroads west of Chicago and the Mississippi River. Regional Director, R. H. Aishton, President of the Chicago & North Western Railroad Company, office at Chicago.

Southern Region, consisting, broadly, of the railroads east of the Mississippi and south of the Ohio and Potomac Rivers (except Chesapeake & Ohio and Norfolk & Western which were in the Eastern Region). Regional Director, C. H. Markham, President of the Illinois Central, office at Atlanta.

Later it was deemed necessary to subdivide the Eastern Region, and on June 1, 1918, there were carved out of it the Allegheny Region and the Pocahontas Region. Under this readjustment, the situation was as follows:

Eastern Region.

The principal railroad systems in this region, that is, Class I railroads, those with operating revenues in 1917 in excess of \$1,000,000, were as follows:

Boston & Maine.
Maine Central.
New York, New Haven & Hartford.
New York Central Lines.
Erie.
Delaware & Hudson.
Delaware, Lackawanna & Western.
Lehigh Valley.

Buffalo, Rochester & Pittsburgh.
New York, Chicago & St. Louis.
Wabash.
Pere Marquette.
Grand Trunk.
Pennsylvania Lines west of Erie and Pittsburgh.
Baltimore & Ohio Lines west of Pittsburgh and Parkersburg.
Chesapeake & Ohio Lines in Indiana and Hocking Valley.
Wheeling & Lake Erie.

Regional Director, A. H. Smith, formerly President of New York Central, with office at New York. In June, 1919, Mr. Smith returned to the Corporation and was succeeded as Regional Director of the Eastern Region by his Assistant, A. T. Hardin, who before Federal Control had been Senior Vice-President of the New York Central. J. H. Hustis, formerly President and Receiver of the Boston & Maine Railroad Company, was District Director, reporting to the Regional Director, with office at Boston, and H. A. Worcester, formerly Vice-President and General Manager of the Cleveland, Cincinnati, Chicago & St. Louis Railway Company, was District Director, reporting to the Regional Director, with office at Cincinnati.

Allegheny Region.

The creation of this region was announced June 1, 1918, by Circular No. 28. The principal railroad systems in this region were:

Pennsylvania Lines east of Erie and Pittsburgh.
Baltimore & Ohio Lines east of Pittsburgh and Parkersburg.
Philadelphia & Reading lines.
Central Railroad of New Jersey.
Pittsburgh & Lake Erie Railroad.
Western Maryland Railroad.
Bessemer & Lake Erie.

Regional Director, C. H. Markham, formerly President of Illinois Central, with office at Philadelphia. In Octo-

ber, 1919, Mr. Markham returned to the Corporation and was succeeded as Regional Director of the Allegheny Region by his Assistant, L. W. Baldwin, who before Federal Control had been Vice-President and General Manager of the Central of Georgia Railroad.

The effect of the creation of the Allegheny Region was to cut the Pennsylvania System and the Baltimore & Ohio System at Pittsburgh and Parkersburg, thus placing the east and west parts of each of these systems under different Regional Directors. This was vigorously objected to by the Pennsylvania and Baltimore & Ohio corporate managements. The propriety of the course was strongly questioned in the Railroad Administration itself, but the view that prevailed was that on account of the extraordinarily heavy war traffic concentrated in the territory east of Pittsburgh, better results for the time being could be secured by putting these lines east of Pittsburgh under the direction of a separate Regional Director who could concentrate on their problems. With this end in view the Pittsburgh & Lake Erie, a New York Central Line, was put in the Allegheny Region. Shortly after the Armistice, the western portions of the Pennsylvania and the Baltimore & Ohio Systems were transferred to the Allegheny Region and the Pittsburgh & Lake Erie was transferred to the Eastern Region so as to place the entire extent of each of these systems under one Regional Director. Similarly the Chesapeake & Ohio Lines in Indiana which during 1918 had been included in the Eastern District were transferred to the Pocahontas Region so as to be under the same jurisdiction as the parent company.

Pocahontas Region.

The creation of this region was announced on June 1, 1918, by Circular No. 30. The principal railroad systems in this region were:

Chesapeake & Ohio Railway, east of Louisville, Columbus and Cincinnati.
Norfolk & Western Railway.
Virginian Railway.

Regional Director, N. D. Maher, formerly President of Norfolk & Western, with office at Roanoke, Virginia.

The theory of creating this comparatively small region was that the three railroads mentioned were involved primarily in the transportation of coal to Hampton Roads for export and also to the interior. These railroads were of immense importance in handling the fuel supply and had special problems which could best be coördinated and handled by intensive direction under a Regional Director close at hand.

Southern Region.

Upon the transfer of Mr. Markham from the position of Regional Director of the Southern Region (in order to become Regional Director of the Allegheny Region), he was succeeded by B. L. Winchell, who had been Traffic Director of the Union Pacific System.

The principal railroad systems in this region were as follows:

Atlantic Coast Line.
Louisville & Nashville.
Illinois Central.
Southern.
Seaboard Air Line.

Subdivision of Western Region.

It was concluded that the transportation problems in the West could

best be handled by subdividing the Western Region and accordingly announcement was made on June 11, 1918, by Circulars Nos. 33, 34 and 35, creating the three following regions:

Northwestern Region.

The principal railroad systems comprised in the Northwestern Region were the following:

Chicago & North Western Lines.
Chicago Great Western.
Chicago, Milwaukee & St. Paul.
Great Northern.
Minneapolis & St. Louis.
Minneapolis, St. Paul & Sault Ste. Marie.
Northern Pacific.
Oregon-Washington Railroad & Navigation Company (Union Pacific Lines north of Huntington, Oregon).
Southern Pacific Lines north of Ashland, Oregon.
U.S. Steel Corporation Roads (Duluth & Iron Range, Duluth, Missabe & Northern, Elgin, Joliet & Eastern).

R. H. Aishton, formerly President of the Chicago & North Western, was made Regional Director with office at Chicago. L. C. Gilman, formerly President of the Spokane, Portland & Seattle Railway Company, was District Director, reporting to the Regional Director, with office at Seattle.

Central Western Region.

The principal railroad systems embraced in this region were the following (the Texas Lines of some of these systems were placed in the Southwestern Region to be referred to below):

Atchison, Topeka & Santa Fe.
Chicago, Rock Island & Pacific.
Chicago & Alton.
Chicago & Eastern Illinois.
Chicago, Burlington & Quincy.

Denver & Rio Grande.
El Paso & Southwestern.
Illinois Central (north of the Ohio River).
Southern Pacific Lines south of Ashland, Oregon.
Union Pacific System (except Oregon-Washington Lines in Northwestern Region).
Western Pacific Railroad.

Hale Holden, formerly President of the Chicago, Burlington & Quincy Railroad Company, was Regional Director, with office at Chicago. William Sproule, formerly President of the Southern Pacific Company, was District Director, reporting to the Regional Director, with office at San Francisco. In February, 1920, Mr. Holden returned to the Corporation and was succeeded as Regional Director of the Central Western Region by R. H. Aishton, whose jurisdiction was extended to include both the Central Western and Northwestern Regions.

Southwestern Region.

The principal lines in this region were the following:

Texas Lines of:
Atchison, Topeka & Santa Fe System.
Burlington System.
Chicago, Rock Island & Pacific System.
Southern Pacific System.
International & Great Northern.
Kansas City Southern.
Missouri Pacific.
Texas & Pacific.
Missouri, Kansas & Texas.
St. Louis-San Francisco.
St. Louis-Southwestern Railway.

B. F. Bush, formerly President of the Missouri Pacific Railroad Company, was Regional Director, with office at St. Louis. F. G. Pettibone, formerly Vice-President of the Gulf, Colorado & Santa Fe (the Texas Line of the Atchison, Topeka & Santa Fe System), was District Director, reporting to the Regional Director, with office at Dallas, Texas.

III

THE FEDERAL CONTROL ACT

(Public—No. 107—65th Congress.)

(S. 3752.)

An Act to provide for the operation of transportation systems while under Federal Control, for the just compensation of their owners, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President, having in time of war taken over the possession, use, control and operation (called herein Federal Control) of certain railroads and system of transportation (called herein carriers), is hereby authorized to agree with and to guarantee to any such carrier making operating returns to the Interstate Commerce Commission, that during the period of such Federal Control it shall receive as just compensation an annual sum, payable from time to time in reasonable installments, for each year and *pro rata* for any fractional year of such Federal Control, not exceeding a sum equivalent as nearly as may be to its average annual railway operating income for the three years ended June thirtieth, nineteen hundred and seventeen.

That any railway operating income accruing during the period of Federal Control in excess of such just compensation shall remain the property of the United States. In the computation of such income, debits and credits arising from the accounts called in the monthly reports to the Interstate Commerce Commission equipment rents and joint facility

rents shall be included, but debits and credits arising from the operation of such street electric passenger railways, including railways commonly called interurbans, as are at the time of the agreement not under Federal Control, shall be excluded. If any lines were acquired by, leased to, or consolidated with such railroad or system between July first, nineteen hundred and fourteen, and December thirty-first, nineteen hundred and seventeen, both inclusive, and separate operating returns to the Interstate Commerce Commission were not made for such lines after such acquisition, lease or consolidation, there shall (before the average is computed) be added to the total railway operating income of such railroad or system for the three years ended June thirtieth, nineteen hundred and seventeen, the total railway operating income of the lines so acquired, leased or consolidated, for the period beginning July first, nineteen hundred and fourteen, and ending on the date of such acquisition, lease or consolidation, or on December thirty-first, nineteen hundred and seventeen, whichever is the earlier. The average annual railway operating income shall be ascertained by the Interstate Commerce Commission and certified by it to the President. Its certificate shall, for the purpose of such agreement, be taken as conclusive of the amount of such average annual railway operating income.

Every such agreement shall pro-

vide that any Federal taxes under the Act of October third, nineteen hundred and seventeen, or Acts in addition thereto or in amendment thereof, commonly called war taxes, assessed for the period of Federal Control beginning January first, nineteen hundred and eighteen, or any part of such period, shall be paid by the carrier out of its own funds, or shall be charged against or deducted from the just compensation; that other taxes assessed under Federal or any other governmental authority for the period of Federal Control or any part thereof, either on the property used under such Federal Control or on the right to operate as a carrier, or on the revenues or any part thereof derived from operation (not including, however, assessments for public improvements or taxes assessed on property under construction, and chargeable under the classification of the Interstate Commerce Commission to investment in road and equipment), shall be paid out of revenues derived from railway operations while under Federal Control; that all taxes assessed under Federal or any other governmental authority for the period prior to January first, nineteen hundred and eighteen, whenever levied or payable, shall be paid by the carrier out of its own funds, or shall be charged against or deducted from the just compensation.

Every such agreement shall also contain adequate and appropriate provisions for the maintenance, repair, renewals and depreciation of the property, for the creation of any reserves or reserve funds found necessary in connection therewith, and for such accounting and adjustments of charges and payments, both during

and at the end of Federal Control as may be requisite in order that the property of each carrier may be returned to it in substantially as good repair and in substantially as complete equipment as it was in at the beginning of Federal Control, and also that the United States may, by deductions from the just compensations or by other proper means and charges, be reimbursed for the cost of any additions, repairs, renewals and betterments to such property not justly chargeable to the United States; in making such accounting and adjustments, due consideration shall be given to the amounts expended or reserved by each carrier for maintenance, repairs, renewals and depreciation during the three years ended June thirtieth, nineteen hundred and seventeen, to the condition of the property at the beginning and at the end of Federal Control and to any other pertinent facts and circumstances.

The President is further authorized in such agreement to make all other reasonable provisions, not inconsistent with the provisions of this Act or of the Act entitled "An Act making appropriations for the support of the Army for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and for other purposes," approved August twenty-ninth, nineteen hundred and sixteen, that he may deem necessary or proper for such Federal Control or for the determination of the mutual rights and obligations of the parties to the agreement arising from or out of such Federal Control.

If the President shall find that the condition of any carrier was during all or a substantial portion of the

period of three years ended June thirtieth, nineteen hundred and seventeen, because of non-operation, receivership, or where recent expenditures for additions or improvements or equipment were not fully reflected in the operating railway income of said three years or a substantial portion thereof, or because of any undeveloped or abnormal conditions, so exceptional as to make the basis of earnings hereinabove provided for plainly inequitable as a fair measure of just compensation, then the President may make with the carrier such agreement for such amount as just compensation as under the circumstances of the particular case he shall find just.

That every railroad not owned, controlled, or operated by another carrier company, and which has heretofore competed for traffic with a railroad or railroads of which the President has taken the possession, use and control, or which connects with such railroads and is engaged as a common carrier in general transportation, shall be held and considered as within "Federal control," as herein defined, and necessary for the prosecution of the war, and shall be entitled to the benefit of all the provisions of this Act: *Provided, however,* That nothing in this paragraph shall be construed as including any street or interurban electric railway which has as its principal source of operating revenue urban, suburban or interurban passenger traffic or sale of power, heat and light, or both.

The agreement shall also provide that the carrier shall accept all the terms and conditions of this act and any regulation or order made by or through the President under author-

ity of this act or of that portion of the act entitled "An act making appropriations for the support of the Army for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and for other purposes," approved August twenty-ninth, nineteen hundred and sixteen, which authorizes the President in time of war to take possession, assume control and utilize systems of transportation.

Sec. 2. That if no such agreement is made, or pending the execution of an agreement, the President may nevertheless pay to any carrier while under Federal Control an annual amount, payable in reasonable installments, not exceeding ninety per centum of the estimated annual amount of just compensation, remitting such carrier, in case where no agreement is made, to its legal rights for any balance claimed to the remedies provided in section three hereof. Any amount thereafter found due such carrier above the amount paid shall bear interest at the rate of six per centum per annum. The acceptance of any benefits under this section shall constitute an acceptance by the carrier of all the provisions of this Act and shall obligate the carrier to pay to the United States, with interest at the rate of six per centum per annum from a date or dates fixed in proceedings under section three, the amount by which the sums received under this section exceed the sum found due in such proceedings.

Sec. 3. That all claims for just compensation not adjusted (as provided in section one) shall, on the application of the President or of any carrier, be submitted to boards, each consisting of three referees to be appointed by the Interstate Com-

merce Commission, members of which and the official force thereof being eligible for service on such boards without additional compensation. Such boards of referees are hereby authorized to summon witnesses, require the production of records, books, correspondence, documents, memoranda and other papers, view properties, administer oaths, and may hold hearings in Washington and elsewhere, as their duties and the convenience of the parties may require. In case of disobedience to a subpoena the board may invoke the aid of any district court of the United States in requiring the attendance and testimony of witnesses and the production of documentary evidence, and such court within the jurisdiction of which such inquiry is carried on may, in case of contumacy or refusal to obey a subpoena issued to any person, corporation, partnership or association, issue an order requiring appearance before the board, or the production of documentary evidence if so ordered, or the giving of evidence touching the matter in question; and any failure to obey such order of the court may be punished by such court as a contempt thereof. Such cases may be heard separately or together or by classes, by such boards as the Interstate Commerce Commission in the first instance, or any board of referees to which any such cases shall be referred may determine. Said boards shall give full hearings to such carriers and to the United States; shall consider all the facts and circumstances, and shall report as soon as practicable in each case to the President the just compensation, calculated on an annual basis and otherwise in such form as

to be convenient and available for the making of such agreement as is authorized in section one. The President is authorized to enter into an agreement with such carrier for just compensation upon a basis not in excess of that reported by such board, and may include therein provisions similar to those authorized under section one. Failing such agreement, either the United States or such carrier may file a petition in the Court of Claims for the purpose of determining the amount of such just compensation, and in the proceedings in said court the report of said referees shall be *prima facie* evidence of the amount of just compensation and of the facts therein stated. Proceedings in the Court of Claims under this section shall be given precedence and expedited in every practicable way.

Sec. 4. That the just compensation that may be determined as hereinbefore provided by agreement or that may be adjudicated by the Court of Claims, shall be increased by an amount reckoned at a reasonable rate per centum to be fixed by the President upon the cost of any additions and betterments, less retirements, and upon the cost of road extensions to the property of such carrier made by such carrier with the approval of or by order of the President while such property is under Federal Control.

Sec. 5. That no carrier while under Federal Control shall, without the prior approval of the President, declare or pay any dividend in excess of its regular rate of dividends during the three years ended June thirtieth, nineteen hundred and seventeen: *Provided, however,* That such carriers as have paid no regular dividends or no dividends during said period may,

with the prior approval of the President, pay dividends at such rate as the President may determine.

Sec. 6. That the sum of \$500,000,-000 is hereby appropriated, out of any moneys in the Treasury not otherwise appropriated, which, together with any funds available from any operating income of said carriers, may be used by the President as a revolving fund for the purpose of paying the expenses of the Federal Control, and so far as necessary the amount of just compensation, and to provide terminals, motive power, cars and other necessary equipment, such terminals, motive power, cars and equipment to be used and accounted for as the President may direct and to be disposed of as Congress may hereafter by law provide.

The President may also make or order any carrier to make any additions, betterments or road extensions, and to provide terminals, motive power, cars and other equipment necessary or desirable for war purposes or in the public interest on or in connection with the property of any carrier. He may from said revolving fund advance to such carrier all or any part of the expense of such additions, betterments or road extensions, and to provide terminals, motive power, cars and other necessary equipment so ordered and constructed by such carrier or by the President, such advances to be charged against such carrier and to bear interest at such rate and be payable on such terms as may be determined by the President, to the end that the United States may be fully reimbursed for any sums so advanced.

Any loss claimed by any carrier by reason of any such additions, better-

ments or road extensions so ordered and constructed may be determined by agreement between the President and such carrier; failing such agreement the amount of such loss shall be ascertained as provided in section three hereof.

From said revolving fund the President may expend such an amount as he may deem necessary or desirable for the utilization and operation of canals, or for the purchase, construction or utilization and operation of boats, barges, tugs and other transportation facilities on the inland, canal and coastwise waterways, and may in the operation and use of such facilities create or employ such agencies and enter into such contracts and agreements as he shall deem in the public interest.

Sec. 7. That for the purpose of providing funds requisite for maturing obligations or for other legal and proper expenditures, or for reorganizing railroads in receivership, carriers may, during the period of Federal Control, issue such bonds, notes, equipment trust certificates, stock and other forms of securities, secured or unsecured by mortgage, as the President may first approve as consistent with the public interest. The President may, out of the revolving fund created by this act, purchase for the United States all or any part of such securities at prices not exceeding par, and may sell such securities whenever in his judgment it is desirable at prices not less than the cost thereof. Any securities so purchased shall be held by the Secretary of the Treasury, who shall, under the direction of the President, represent the United States in all matters in con-

nection therewith in the same manner as a private holder thereof. The President shall each year as soon as practicable after January first cause a detailed report to be submitted to the Congress of all receipts and expenditures made under this section and section six during the preceding calendar year.

Sec. 8. That the President may execute any of the powers herein and heretofore granted him with relation to Federal Control through such agencies as he may determine, and may fix the reasonable compensation for the performance of services in connection therewith, and may avail himself of the advice, assistance, and coöperation of the Interstate Commerce Commission and of the members and employees thereof, and may also call upon any department, commission, or board of the Government for such services as he may deem expedient. But no such official or employee of the United States shall receive any additional compensation for such services except as now permitted by law.

Sec. 9. That the provisions of the act entitled "An act making appropriations for the support of the Army for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and for other purposes," approved August twenty-ninth, nineteen hundred and sixteen, shall remain in force and effect except as expressly modified and restricted by this act; and the President, in addition to the powers conferred by this act, shall have and is hereby given such other and further powers necessary or appropriate to give effect to the powers herein and heretofore conferred. The

provisions of this act shall also apply to any carriers to which Federal Control may be hereafter extended.

Sec. 10. That carriers while under Federal Control shall be subject to all laws and liabilities as common carriers, whether arising under State or Federal laws or at common law, except in so far as may be inconsistent with the provisions of this act or any other act applicable to such Federal Control or with any order of the President. Actions at law or suits in equity may be brought by and against such carriers and judgments rendered as now provided by law; and in any action at law or suit in equity against the carrier, no defense shall be made thereto upon the ground that the carrier is an instrumentality or agency of the Federal Government. Nor shall any such carrier be entitled to have transferred to a Federal court any action heretofore or hereafter instituted by or against it, which action was not so transferable prior to the Federal Control of such carrier; and any action which has heretofore been so transferred because of such Federal Control or of any act of Congress or official order or proclamation relating thereto shall upon motion of either party be transferred to the court in which it was originally instituted. But no process, mesne or final, shall be levied against any property under such Federal Control.

That during the period of Federal Control, whenever in his opinion the public interest requires, the President may initiate rates, fares, charges, classifications, regulations and practices by filing the same with the Interstate Commerce Commission, which said rates, fares, charges, classifications, regulations and prac-

tices shall not be suspended by the commission pending final determination.

Said rates, fares, charges, classifications, regulations and practices shall be reasonable and just and shall take effect at such time and upon such notice as he may direct, but the Interstate Commerce Commission, shall, upon complaint, enter upon a hearing concerning the justness and reasonableness of so much of any order of the President as establishes or changes any rate, fare, charge, classification, regulation or practice of any carrier under Federal Control, and may consider all the facts and circumstances existing at the time of the making of the same. In determining any question concerning any such rates, fares, charges, classifications, regulations or practices or changes therein, the Interstate Commerce Commission shall give due consideration to the fact that the transportation systems are being operated under a unified and coördinated national control and not in competition.

After full hearing the commission may make such findings and orders as are authorized by the act to regulate commerce as amended, and said findings and orders shall be enforced as provided in said act: *Provided, however,* That when the President shall find and certify to the Interstate Commerce Commission that in order to defray the expenses of Federal Control and operation fairly chargeable to railway operating expenses, and also to pay railway tax accruals other than war taxes, net rents for joint facilities and equipment, and compensation to the carriers, operating as a unit, it is necessary to in-

crease the railway operating revenues, the Interstate Commerce Commission in determining the justness and reasonableness of any rate, fare, charge, classification, regulation or practice shall take into consideration said finding and certificate by the President, together with such recommendations as he may make.

Sec. 11. That every person or corporation, whether carrier or shipper, or any receiver, trustee, lessee, agent or person acting for or employed by a carrier or shipper, or other person, who shall knowingly violate or fail to observe any of the provisions of this act, or shall knowingly interfere with or impede the possession, use, operation or control of any railroad property, railroad or transportation system hitherto or hereafter taken over by the President, or shall knowingly violate any of the provisions of any order or regulation made in pursuance of this act, shall be guilty of a misdemeanor, and shall, upon conviction, be punished by a fine of not more than \$5,000, or, if a person, by imprisonment for not more than two years, or both. Each independent transaction constituting a violation of, or a failure to observe, any of the provisions of this act, or any order entered in pursuance hereof, shall constitute a separate offense. For the taking or conversion to his own use or the embezzlement of money or property derived from or used in connection with the possession, use, or operation of said railroads or transportation systems, the criminal statutes of the United States, as well as the criminal statutes of the various States where applicable, shall apply to all officers, agents and employees engaged in said railroad and transportation service, while the same

is under Federal Control, to the same extent as to persons employed in the regular service of the United States. Prosecutions for violations of this act or of any order entered hereunder shall be in the district courts of the United States, under the direction of the Attorney General, in accordance with the procedure for the collection and imposing of fines and penalties now existing in said courts.

Sec. 12. That moneys and other property derived from the operation of the carriers during Federal Control are hereby declared to be the property of the United States. Unless otherwise directed by the President, such moneys shall not be covered into the Treasury, but such moneys and property shall remain in the custody of the same officers, and the accounting thereof shall be in the same manner and form as before Federal Control. Disbursements therefrom shall, without further appropriation, be made in the same manner as before Federal Control and for such purposes as under the Interstate Commerce Commission classification of accounts in force on December twenty-seventh, nineteen hundred and seventeen, are chargeable to operating expenses or to railway tax accruals and for such other purposes in connection with Federal Control as the President may direct, except that taxes under Titles One and Two of the act entitled "An act to provide revenue to defray war expenses, and for other purposes," approved October third, nineteen hundred and seventeen, or any act in addition thereto or in amendment thereof, shall be paid by the carrier out of its own funds. If Federal Control begins or ends during the tax year for

which any taxes so chargeable to railway tax accruals are assessed, the taxes for such year shall be apportioned to the date of the beginning or ending of such Federal Control, and disbursements shall be made only for that portion of such taxes as is due for the part of such tax year which falls within the period of Federal Control.

At such periods as the President may direct, the books shall be closed and the balance of revenues over disbursements shall be covered into the Treasury of the United States to the credit of the revolving fund created by this act. If such revenues are insufficient to meet such disbursements, the deficit shall be paid out of such revolving fund in such manner as the President may direct.

Sec. 13. That all pending cases in the courts of the United States affecting railroads or other transportation systems brought under the act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, as amended and supplemented, including the commodities clause, so called, or under the act to protect trade and commerce against unlawful restraints and monopolies, approved July second, eighteen hundred and ninety, and amendments thereto, shall proceed to final determination as soon as may be, as if the United States had not assumed control of transportation systems; but in any such case the court having jurisdiction may, upon the application of the United States, stay execution of final judgment or decree until such time as it shall deem proper.

Sec. 14. That the Federal Control of railroads and transportation sys-

tems herein and heretofore provided for shall continue for and during the period of the war and for a reasonable time thereafter, which shall not exceed one year and nine months next following the date of the proclamation by the President of the exchange of ratifications of the treaty of peace: *Provided, however,* That the President may, prior to July first, nineteen hundred and eighteen, relinquish control of all or any part of any railroad or system of transportation, further Federal Control of which the President shall deem not needful or desirable; and the President may at any time during the period of Federal Control agree with the owners thereof to relinquish all or any part of any railroad or system of transportation. The President may relinquish all railroads and systems of transportation under Federal Control at any time he shall deem such action needful or desirable. No right to compensation

shall accrue to such owners from and after the date of relinquishment for the property so relinquished.

Sec. 15. That nothing in this act shall be construed to amend, repeal, impair or affect the existing laws or powers of the States in relation to taxation or the lawful police regulations of the several States, except wherein such laws, powers or regulations may affect the transportation of troops, war materials, Government supplies or the issue of stocks and bonds.

Sec. 16. That this act is expressly declared to be emergency legislation enacted to meet conditions growing out of war; and nothing herein is to be construed as expressing or prejudicing the future policy of the Federal Government concerning the ownership, control or regulation of carriers or the method or basis of the capitalization thereof.

Approved, March 21, 1918.

APPENDIX TO CHAPTER V

Extracts from the Address of President Wilson Delivered to Congress, December 2, 1918.

The question which causes me the greatest concern is the question of the policy to be adopted towards the railroads. I frankly turn to you for counsel upon it. I have no confident judgment of my own. I do not see how any thoughtful man can have who knows anything of the complexity of the problem. It is a problem which must be studied, studied immediately, and studied without bias or prejudice. Nothing can be gained by becoming partisans of any particular plan of settlement.

It was necessary that the administration of the railways should be taken over by the Government so long as the War lasted. It would have been impossible otherwise to establish and carry through under a single direction the necessary priorities of shipment. It would have been impossible otherwise to combine maximum production at the factories and mines and farms with the maximum possible car supply to take the products to the ports and markets; impossible to route troop shipments and freight shipments without regard to the advantage or disadvantage of the roads employed; impossible to subordinate, when necessary, all questions of convenience to the public necessity; impossible to give the necessary financial support to the roads from the public treasury. But all these necessities have now been served and the question is, what is best for the railroads and for the public in the future.

Exceptional circumstances and exceptional methods of administration were not needed to convince us that the railroads were not equal to the immense tasks of transportation imposed upon them by the rapid and continuous development of the industries of the country. We knew that already. And we knew that they were unequal to it partly because their full coöperation was rendered impossible by law and their competition made obligatory, so that it has been impossible to assign to them severally the traffic which could best be carried by their respective lines in the interest of expedition and national economy.

We may hope, I believe, for the formal conclusion of the War by treaty by the time Spring has come. The twenty-one months to which the present control of the railways is limited after formal proclamation of peace shall have been made will run at the farthest, I take it for granted, only to the January of 1921. The full equipment of the railways which the federal administration had planned could not be completed within any such period. The present law does not permit the use of the revenues of the several roads for the execution of such plans except by formal contract with their directors, some of whom will consent while some will not, and therefore does not afford sufficient authority to undertake improvements upon the scale upon which it would be necessary to undertake them. Every approach to this difficult subject-matter of decision brings us face to face, therefore, with this unanswered question:

What is it right that we should do with the railroads, in the interest of the public and in fairness to their owners?

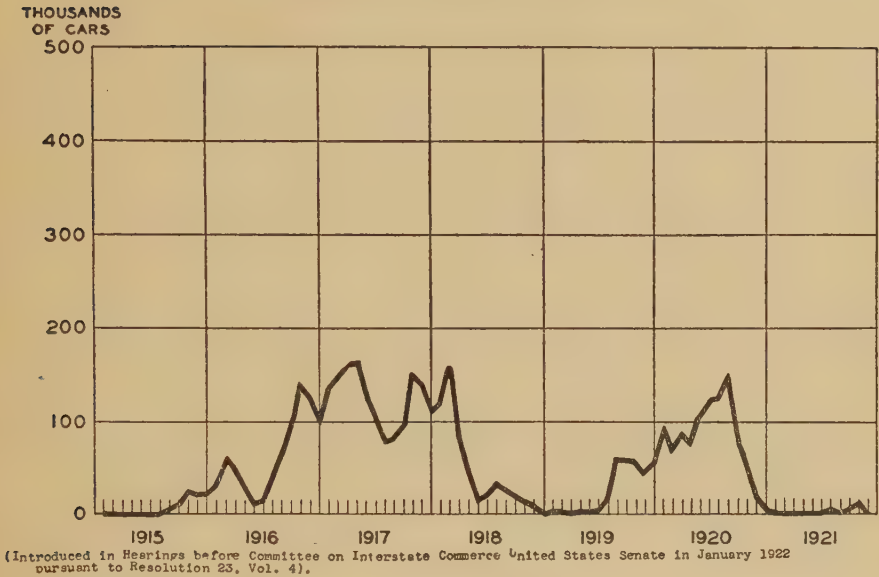
Let me say at once that I have no answer ready. The only thing that is perfectly clear to me is that it is not fair either to the public or to the owners of the railroads to leave the question unanswered and that it will presently become my duty to relinquish control of the roads, even before the expiration of the statutory period, unless there should appear some clear prospect in the meantime of a legislative solution. Their release would at least produce one element of a solution, namely, certainty and a quick stimulation of private initiative.

I believe that it will be serviceable for me to set forth as explicitly as possible the alternative courses that lie open to our choice. We can simply release the roads and go back to the old conditions of private management, unrestricted competition, and multiform regulation by both State and Federal authorities; or we can go to the opposite extreme and establish complete Government control, accompanied, if necessary, by actual Government ownership; or we can adopt an intermediate course of modified private control, under a more unified and affirmative public regulation and under such alterations of the law as will permit wasteful competition to be avoided and a considerable degree of unification of administration to be effected, as, for example, by regional corporations under which the railways of definable areas would be in effect combined in single systems.

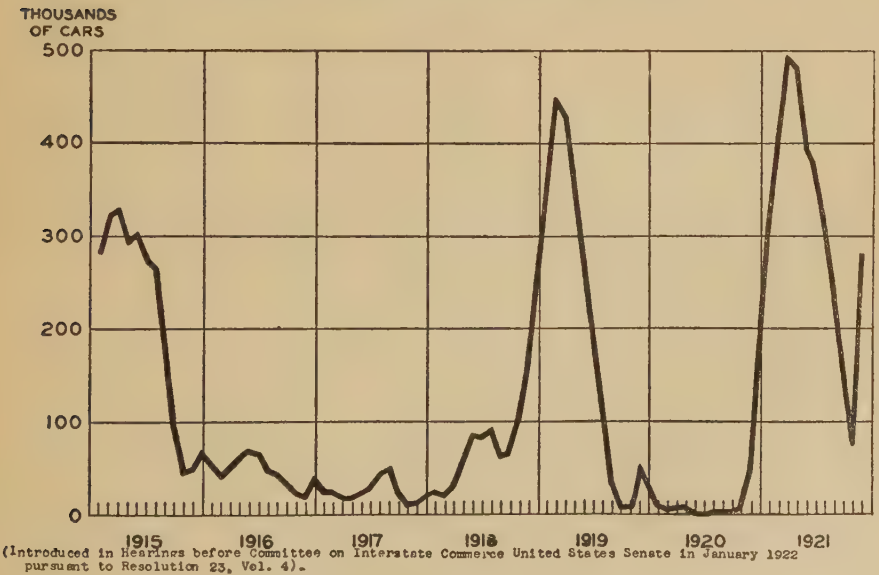
The one conclusion that I am ready to state with confidence is that it would be a disservice alike to the country and to the owners of the railroads to return to the old conditions unmodified. Those are conditions of restraint without development. There is nothing affirmative or helpful about them. What the country chiefly needs is that all its means of transportation should be developed, its railways, its waterways, its highways, and its countryside roads. Some new element of policy, therefore, is absolutely necessary,—necessary for the service of the public, necessary for the release of credit to those who are administering the railways, necessary for the protection of their security holders. The old policy may be changed much or little, but surely it cannot be wisely left as it was. I hope that the Congress will have a complete and impartial study of the whole problem instituted at once and prosecuted as rapidly as possible. I stand ready and anxious to release the roads from the present control and I must do so at a very early date if by waiting until the statutory limit of time is reached I shall be merely prolonging the period of doubt and uncertainty which is hurtful to every interest concerned.

APPENDIX TO CHAPTER VII

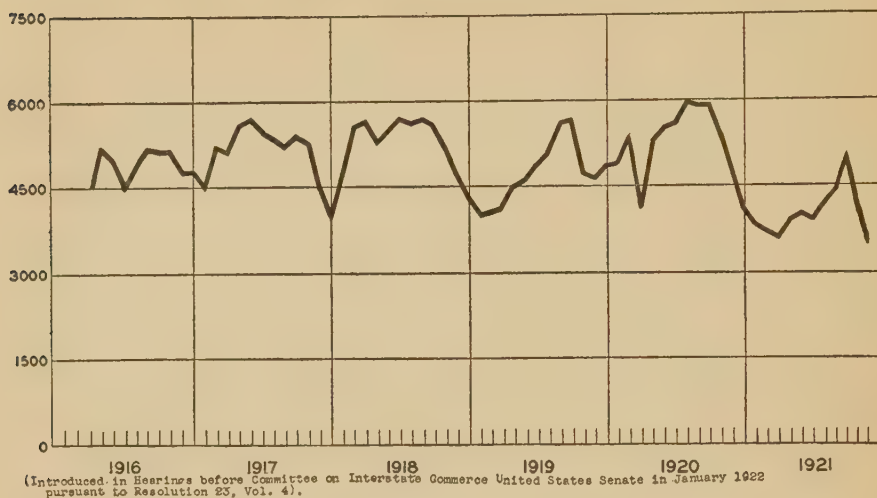
FREIGHT CAR SHORTAGES, 1915 - 1921



FREIGHT CAR SURPLUSAGES, 1915 - 1921



NET TON MILES PER MILE OF ROAD PER DAY FOR ALL CLASS I RAILROADS, 1916 - 1921



Class I Railroads.

Freight and Passenger Traffic Statistics for the Calendar Years 1916-1919.

	Calendar Years			
	1916	1917	1918	1919
<i>Miles of Road Operated</i>	230,991	232,199	233,204	233,809
<i>Freight Traffic</i>	(Thousands)	(Thousands)	(Thousands)	(Thousands)
Freight revenue	\$2,560,988	\$2,819,965	\$3,440,742	\$3,543,266
Revenue tons originated	1,203,367	1,264,016	1,262,621	1,095,549
Revenue ton miles	362,444,397	394,465,400	405,379,284	364,293,063
Non-revenue ton miles	33,921,520	35,853,614	34,622,429	31,385,989
Total net ton miles	396,365,917	430,319,014	440,001,713	395,679,052
Loaded freight car miles	15,879,371	15,932,050	15,024,900	14,312,795
Empty freight car miles	6,759,986	6,763,695	7,161,805	6,532,524
Total freight car miles	22,639,357	22,695,745	22,186,705	20,845,320
Freight train miles	641,257	654,499	639,011	571,763
<i>Averages</i>				
Revenue ton miles per mile of road	1,569,084	1,698,825	1,738,305	1,558,081
Haul in miles per ton originated	301.19	312.07	320.88	332.25
Revenue per ton originated	\$2.13	\$2.23	\$2.73	\$3.23
Revenue per ton mile	\$.00707	\$.00715	\$.00849	\$.00973
Carload (net tons)	24.96	27.01	29.28	27.65
Trainload (net tons)	618	657	688	692
Per cent loaded to total car miles	70.14	70.20	67.72	68.66

	Calendar Years			
	1916	1917	1918	1919
<i>Passenger Traffic</i>	(Thousands)	(Thousands)	(Thousands)	(Thousands)
Passenger Revenue	\$706,609	\$825,212	\$1,031,563	\$1,178,454
Passenger miles	34,585,952	39,476,859	42,676,579	46,358,304
Passenger train car miles	3,425,812	3,506,836	3,306,714	3,469,042
Passenger train miles	582,911	582,638	536,772	546,131
<i>Averages</i>				
Passenger miles per mile of road	149,795	170,088	183,066	198,345
Revenue per passenger mile	\$.02042	\$.02090	\$.02414	\$.02540
Passengers per car	10.10	11.26	12.91	13.36
Passenger train cars per train	5.88	6.02	6.16	6.35
Passengers per train	59.33	67.76	79.32	84.88

Comments of Regional Directors.

The Eastern Region consisted principally of the New England railroads and the trunk lines between the Atlantic seaboard and Chicago (except the Pennsylvania and Baltimore & Ohio). Its Regional Director until 1919 was A. H. Smith, who, before and since such service, was and is President of the New York Central.

His annual report for 1918 is replete with evidences of his energy and sincerity of purpose and of the efficient manner in which the railroads in his region performed the public service during the year 1918, despite extraordinary difficulties which he vividly portrays.

He concludes his report by saying:

In closing, I wish to particularly mention and commend the officers and employees of these railroads for their tireless efforts and extreme loyalty during a year of unusual circumstances and tense situations. By such were we able to accomplish what was done, and I take great pleasure in having this opportunity to mention their patriotism.

At the earnest insistence of the New York Central, Mr. Smith resigned as Regional Director June 2, 1919, in order to resume his position as President of that company, and

upon his recommendation, A. T. Hardin, whom Mr. Smith had selected as his Assistant Regional Director, and who was, prior to Federal Control, and thereafter until his death, Senior Vice-President of the New York Central, succeeded as Regional Director and made the Regional Director's report for 1919. Mr. Hardin states in his report that:

The traffic was handled promptly and without interruption during the year except for some minor temporary accumulations hereinafter mentioned.

Referring to passenger service he says:

All lines report the service rendered as satisfactory to the traveling public and very few complaints received. There has been a heavy increase in suburban passenger traffic in and out of the larger cities due to the restricted housing conditions in the cities forcing people into the suburbs.

He also says:

Freight claims are now being adjusted more promptly and probably with less friction with the public than ever before.

He explains that:

New stores methods have been put into operation on all roads as far as practi-

cable, and through frequent inspections conditions have been greatly improved; all stores employees being placed under the supervision of the stores department, uniform stock books installed, and up-to-date methods of storing and handling material adopted.

His report is in considerable detail and shows throughout the highly intelligent and effective rendition of the public service in the Eastern Region.

The Allegheny Region consisted in 1918 principally of the Pennsylvania and Baltimore & Ohio systems east of Pittsburgh, and in 1919 of the entire Pennsylvania and Baltimore & Ohio systems. The Regional Director was C. H. Markham, who had been President of the Illinois Central, and who in 1919, upon the urgent request of that company, resigned as Regional Director to become its President again, then being succeeded by his Assistant Regional Director, L. W. Baldwin, who prior to Federal Control was Vice-President of the Central of Georgia. For some time after Federal Control Mr. Baldwin was Vice-President of the Illinois Central. More recently he has been President of the Missouri Pacific.

Mr. Markham's report for 1918 gives a concise but striking account of the accomplishments of the railroads in the Allegheny Region. Among other things, he said:

Considering the large increase in business and the fact that many experienced employees entered the military and naval service or were engaged at munition plants or other lines of war work, their places being taken by less experienced employees, both passenger and freight business were well handled. I am pleased to say that we have had the hearty cooperation of all the officers and employees

of railroads in the region, and to this I attribute in a large measure the success in handling the business.

Mr. Baldwin's report for the year 1919 sets forth in considerable detail the effective way in which the business was handled during that year. Among other things, he said:

A vigorous campaign, which was intensified after the signing of the armistice, has been constantly conducted to insure scheduled performances of passenger trains. The importance of running passenger trains on time has been strongly impressed upon Federal managers, general managers, operating and traffic officers in regional meetings and meetings of heads of departments with their subordinates, with the result that the performance desired has permeated to all of the men in passenger service. A daily record is maintained in this office and where trains perform poorly, analysis is made, and if corrective methods can not insure maintenance of schedules with regularity, changes in schedules are made. Everyone has been further impressed by preparing in this office semi-monthly and monthly comparative performance reports which are furnished Federal managers to be handled with their organizations, thereby creating incentive for better performance from period to period and month to month. The results obtained are reflected in report for the month of November, which shows 72,938 trains operated, 88.5 per cent of which were on time and 91.9 per cent maintained schedule or made up time.

Mr. Baldwin explains the difficulties in the handling of freight traffic and indicates the satisfactory results accomplished.

He outlines the special campaigns which were conducted to produce satisfactory operating results in the following respects among others: for the minimizing of personal injuries, the reduction of train accidents, the prevention of freight claims, the

close control and comparison of the number of hours of labor paid for, the prompt handling and full loading of freight cars, the important reduction in initial and final terminal detention to trains, conservation in the use of fuel, reduction of excess hours of service, increase in trainloads and the coördination of facilities.

The Northwestern Region consisted of the Great Northern, the Northern Pacific, the St. Paul, the Chicago & North Western and certain other railroads. Its Regional Director was R. H. Aishton, who, before Federal Control, was President of the Chicago & North Western, and who, after Federal Control, became President of the American Railway Association, which position he now (1927) holds.

Mr. Aishton's report for 1918 contains a detailed and interesting account of the important unification of terminals and the elimination of unnecessary competitive services, the adoption of solid-train movements, and other instances of coördinated and consolidated action. Among other things, he speaks of the shortage of oil in the eastern territory for munition plants and for export, and he states that a method of improved movement was adopted with an extraordinary increase in efficiency. He says:

The comments of the oil interests, without any exception, have been very flattering in connection with this operation.

He further states:

The time on fruit from Pacific coast states points was extended 24 to 32 hours. By reason of this added time it was possible to establish such a regularity of the movement that we have been informed by the shippers that they re-

ceive the best service ever given them on fruit in the history of their business. In this it was necessary to disregard the routing and to say to the shippers that we wanted the fruit consolidated on certain lines in solid trains, rather than moved over various lines in small lots, which was a very expensive and wasteful method of transportation followed under competitive conditions.

He explains a coördination of the handling of the ore, grain and coal business at upper Lake Michigan and Lake Superior ports:

The wisdom of this plan has been fully justified by the results, and all concerned have indicated their very hearty approval of the arrangement, and expressly hope that it may continue.

Mr. Aishton, in his report for 1919, further discusses unification of terminals, various forms of coöperative action, and emphasizes constructive results which ought to be retained. Among other things he mentions particularly the wonderful record made by the district agency of the Union Stock Yards, Chicago, which he says handled the business of 23 trunk lines and 2 switching lines, a total of 25, where formerly it was necessary for consignees and shippers to go to one of 25 individual lines in order to transact their business relative to live-stock receipts and shipments; and he indicates that, in addition, there was a great saving in wages and the avoidance of great delay and confusion.

He refers to the very satisfactory handling of solid-train movement of fruit under schedules from California and Northern Pacific coast points to the East. He refers to the excellent results in connection with the movement of meat and packing-house products from the packing-house cen-

ters on the Missouri River and at South St. Paul, the shipments being consolidated and being moved on certain lines on certain days. He says the schedules are maintained with regularity and "this arrangement has been heartily indorsed by the packers, and we have no cases where our regular meat runs failed to make eastern connections." He explains the much greater regularity in the handling of live stock into Chicago, and says:

The shippers, live-stock commission men, and packers have freely expressed themselves as being afforded a performance in live-stock trains during the past year such as they have never received before in the history of the packing industry.

He explains that active efforts have been made to prevent claims through removing the causes therefor, and that important results have been accomplished.

He states that the activities of the fuel conservation department have shown some very gratifying results.

He enumerates various things which have been inaugurated during the period of Federal Control and which he thinks should be retained. Among these are the centralized control of freight car equipment so as to regulate the supply of cars to the demand, the common control of individual railroad operations in large terminals, the control of routing of freight in times of existing or threatened congestion, the consolidation of freight into trainload lots, the elimination of unduly circuitous routes, the continuation of the permit system, and the continuation of the control of rate making by committees such as were established during Fed-

eral Control. He indicates that such control through committees is not unpopular except with shippers who have unusual means of influencing rates, as, for example, through being able to control important competitive traffic.

The Central Western Region consisted of the Burlington, the Rock Island, the Santa Fe, the Southern Pacific Lines west of El Paso, and some others. The Regional Director was Hale Holden, who prior to Federal Control was President of the Burlington, and who also was one of the five members of the Railroads' War Board, which represented the railroad companies from April to December, 1917. Mr. Holden near the end of Federal Control again became President of the Burlington.

In his report for 1918 he shows the economies arising from unification of terminals and stations. He states there has been a gratifying increase in efficiency in freight traffic movement and car performance, and that an increase of business has been handled with fewer train miles, and that when the statistics for the year are completed there will be still further evidence of operating efficiency. He says the shippers of oil have commended the methods adopted in handling that commodity. He says valuable results have been accomplished by the regional purchasing committee, its principal task being the distribution of ties. He says the tie-treating department has been productive of much benefit and the quality of tie treatment has been improved. He speaks of the good results resulting from the fuel conservation movement of the Railroad Administration, and that large sav-

ings are to be expected therefrom. He says that as a result of the movement for the reduction of accidents there has been an appreciable decrease in accidents and further improvement is certain to occur. He says rapid progress is being made toward uniform methods of handling claims and for preventing the arising of claims.

In Mr. Holden's report for 1919 he describes the extraordinary difficulties in the way of handling of traffic, due to exceptional weather conditions, blizzards, washouts, shopmen's strike, nation-wide bituminous coal strike, *etc.*, and gives detailed account of the results accomplished. He explains that during the year considerable passenger train service eliminated during the War has been restored, the increase amounting to 4,500,000 train miles per annum in the region, and that lounge, observation and parlor cars have been restored on the principal trains. He comments on the favorable results from the work of the regional purchasing committee and from the work in fuel conservation, in promotion of safety, in the efforts to prevent fire losses, and in the prevention of freight claims.

The Southwestern Region consisted principally of the Missouri Pacific, the Iron Mountain, and other railroads from St. Louis and Kansas City to the Southwest, the Santa Fe Lines in Texas, and the Southern Pacific Lines east of El Paso. The Regional Director was B. F. Bush, who was President of the Missouri Pacific prior to the War and who after Federal Control was President of that company for several years.

In his annual report for 1918 he

comments on the economies arising from unification of terminals and consolidation and coördination of other facilities, gives an account of the satisfactory handling of various sorts of traffic, comments on the improved conservation of fuel, the elimination of fire hazards through fire-prevention work, and the efforts to reduce the number of live stock killed.

In his report for 1919 Mr. Bush points out the extraordinarily difficult conditions which developed in Texas, one being the unprecedented oil development which happened to be on branch railroads or railroads of light construction, making the handling of the traffic exceptionally difficult; another being a rainfall of unprecedented volume in the State throughout the year, greatly injuring some crops and rendering the handling of others very difficult and impairing the roadbed of many railroads which had never been fully ballasted; and the third complication being a wheat crop three times as much as the normal Texas crop. He gives detailed explanation of the handling of various sorts of traffic, explains the peculiar difficulties as to car distribution, shows the efforts made to promote efficiency in various ways, including the proper handling of stocks and material, the prevention of claims, the promotion of safety, the conservation of fuel and the prevention of fire.

The Pocahontas Region consisted of the Norfolk & Western, the Chesapeake & Ohio and the Virginian Railway. Its Regional Director was N. D. Maher, who was President of the Norfolk & Western prior to Federal Control and who held that posi-

tion for a number of years after Federal Control.

Mr. Maher in his report for 1918 referred to the economies arising from unification, to the facilitating of traffic through coördinating the railroads to a better extent; recapitulates numerous instances of coöperative action which have been in the direction of efficiency, but which are too intangible to estimate in money; mentions numerous items which have been of material benefit in the operation of the railroads, among which are the establishment of universal interline billing, the uniform method in the handling of freight claims, general simplification of freight tariffs, the joint purchasing system which he says has undoubtedly resulted in great savings by preventing excessive and profiteering prices, and the direct movement of empty cars which have saved much expense formerly entailed in crosshauling cars.

Mr. Maher in his report for 1919 again refers to the unifications adopted; explains the depressions and interruptions in business which impaired the results in his Region; speaks of the efforts made throughout the year toward economy in man-hour expenditures per unit of output in all departments; says that through-freight schedules which were discontinued during the War were reinstated; indicates that a substantial amount of additional passenger-train service was inaugurated; and says that except during periods of strike in June and August the passenger-train performance has been kept up to an exceptional standard in the circumstances, 90 per cent of the trains arriving at destination terminal on

schedule time. He says that an extraordinarily good condition existed as to unsettled freight claims and explains that the safety work was carried forward throughout the year.

The Southern Region consisted in general of the railroads south of the Norfolk & Western and south of the Ohio River and east of the Mississippi River. C. H. Markham was Regional Director during the first half of 1918, when he was succeeded by B. L. Winchell, who had theretofore been President of the Frisco Railroad and Traffic Director of the Union Pacific System. After the War, Mr. Winchell became President of the Remington Typewriter Company.

In his report for 1918 Mr. Winchell refers to the substantial economies accomplished through unifications, numerous other instances of coöperative action which were in the direction of efficiency, but which were too intangible to be made the basis of a direct money estimate, and explained in considerable detail the favorable manner in which traffic was handled and operations conducted as compared with former periods. He said:

Few of the public, except large employers of labor, can have any fair conception of the difficulty of railroad operating during the past year with such a considerable proportion of untrained men in the service, replacing those skilled operatives who responded so loyally and so freely to the call of arms.

In his report for 1919 he again explained that the unification of terminals had shown good results both in efficiency and economy, pointed out the improvement made in the maintenance of passenger train

schedules, the beneficial results of the work of the special terminal committees which were established in the fall, the satisfactory handling of the fruit and vegetable crops, the difficulties arising out of the coal strike, the important economies effected in connection with telegraph and telephone service, the inauguration of new sleeping-car lines, the very decided improvement in the freight-

claim situation, the success of the freight-service bureau which was designed to give information to shippers which had formerly been given by the soliciting forces of the different railroads, and the important accomplishments resulting from the consolidation of eight separate and distinct bureaus dealing with demurrage and weighing and inspection matters.

Classes and Types of Standardized Locomotives.

	<i>Number</i>
Light Mikado, U.S.R.A. 2-8-2	625
Heavy Mikado, U.S.R.A. 2-8-2	233
Light Mountain, U.S.R.A. 4-8-2	47
Heavy Mountain, U.S.R.A. 4-8-2	15
Light Pacific, U.S.R.A. 4-6-2	81
Heavy Pacific, U.S.R.A. 4-6-2	20
Light Santa Fe, U.S.R.A. 2-10-2	94
Heavy Santa Fe, U.S.R.A. 2-10-2	175
Switcher 6-wheel, U.S.R.A.	255
Switcher 8-wheel, U.S.R.A.	175
Mallet, U.S.R.A. 2-6-6-2	30
Mallet, U.S.R.A. 2-8-8-2	80
Total	1,830
Special designs for individual railroads	100
Grand total	1,930

Classes of Standardized Cars.

- 25,000 self-clearing, steel hopper cars of 55 tons capacity.
- 25,000 single sheathed box cars of 50 tons capacity.
- 25,000 double sheathed box cars of 40 tons capacity.
- 20,000 composite gondolas, with drop doors, of 50 tons capacity.
- 5,000 low side gondolas of 70 tons capacity.

APPENDIX TO CHAPTER X

The following is the form of the "Standard Clauses" which were generally referred to as the "Standard Contract" and which were incorporated in the contracts between the Director General of Railroads and the various carrier corporations with which contracts were made. This form was for a corporation having no common carrier subsidiaries. There was a separate form, being simply an adaptation of the form here shown, but with necessary additional provisions, for corporations having carrier subsidiaries.

(Form A, October 22, 1918.—For companies without subsidiaries.)

AGREEMENT BETWEEN THE DIRECTOR GENERAL OF RAILROADS AND THE COMPANY.

Preamble and Recitals.

This Agreement, made this day of, 1918, between William G. McAdoo, Director General of Railroads, hereinafter called the Director General, acting on behalf of the United States and the President, under the powers conferred by the proclamations of the President hereinafter referred to, and the Company, a corporation duly organized under the laws of the State(s) of, hereinafter called the Company:

Witnesseth that—

(a) Whereas by a proclamation dated December 26, 1917, the President, acting under the powers conferred on him by the Constitution and laws of the United States, by the joint resolutions of the Senate and House of Representatives bearing date April 6 and December 7, 1917, respectively, and particularly under the powers conferred by section 1 of the act of Congress approved August 29, 1916, entitled "An act making appropriations for the support of the Army for the fiscal

year ending June 30, 1917, and for other purposes," took possession and assumed control at 12 o'clock noon on December 28, 1917, of certain railroads and systems of transportation, including the railroad and transportation system of the Company and the appurtenances thereof, and directed that the possession, control, operation and utilization of the transportation systems thus taken should be exercised by and through William G. McAdoo, appointed Director General of Railroads; and

(b) Whereas the Congress of the United States, by an act approved March 21, 1918, hereinafter called the Federal Control Act, has authorized the President to enter into agreements with the companies owning the railroads and systems thus taken over for the maintenance and upkeep of the same during the period of Federal Control, for the determination of the rights and obligations of the parties to the agreement arising from or out of Federal Control, including the compensation to be received or

guaranteed, and for other purposes, as in said act more fully set out, and authorize the President to exercise any of the powers by said act or theretofore granted him with relation to Federal Control through such agencies as he might determine; and

(c) Whereas by a proclamation dated March 29, 1918, the President, acting under the Federal Control Act and all other powers him thereto enabling, authorized the Director General, either personally or through such divisions, agencies or persons as he may appoint, and in his own name or in the name of such divisions, agencies or persons, or in the name of the President, to agree with the carriers, or any of them, or with any other person in interest, upon the amount of compensation to be paid pursuant to law, and to sign, seal and deliver in his own name or in the name of the President or in the name of the United States such agreements as may be necessary and expedient with the several carriers or other persons in interest respecting compensation or any other matter concerning which it may be necessary or expedient to deal, and to make any and all contracts, agreements or obligations necessary or expedient and to issue any and all orders which may in any way be found necessary and expedient in connection with the Federal Control of systems of transportation, railroads and inland waterways as fully in all respects as the President is authorized to do, and generally to do and perform all and singular the acts and things and to exercise all and singular the powers and duties which in and by the said act, or any other act in relation to the subject

thereof, the President is authorized to do and perform; and

(d) Whereas the Interstate Commerce Commission has certified to the President that the amount of the average annual railway operating income of the Company, computed in the manner provided in section 1 of the Federal Control Act, is dollars and cents (\$.....), subject to such changes and corrections as the Commission may hereafter determine and certify to be requisite in order that the accounts and reports of the Company used by the Commission as the basis of computing said average annual railway operating income may be brought into conformity with the accounting rules or regulations of the Commission in force at the time of such accounting, or in order to correct computations based on such accounts or reports.

Now, Therefore, the parties hereto, each in consideration of the agreements of the other herein contained, do hereby covenant and agree to and with each other as follows:

*Section 1.—Privity, Alterations,
Definitions, etc.*

Sec. 1. (a) This agreement shall be binding upon the United States, the Director General and his successors, and upon the Company, its successors and assigns.

This agreement shall not be construed as creating any right, claim, privilege or benefit against either party hereto in favor of any state or any subdivision thereof, or of any individual or corporation other than the parties hereto.

(b) The provisions of this agreement may be altered, amended or

added to by and only by mutual consent signified by instruments in writing signed by the Director General and by some officer of the Company thereto duly authorized by the Board of Directors of the Company.

(c) Wherever in this agreement the word "Commissioner" is used it shall be understood as meaning the Interstate Commerce Commission, acting by divisions or otherwise as authorized by law; but either party shall have the right to have the decision of any division reviewed by the Commission sitting as a whole.

(d) Wherever in this agreement the words "Federal Control" are used to indicate a period of time, they shall be understood as meaning the period from 12 o'clock midnight of December 31, 1917, to and including the day and hour on which said control shall cease.

(e) Wherever in this agreement the words "test period" are used, they shall be understood as meaning the period between July 1, 1914, and June 30, 1917, both inclusive.

(f) Wherever in this agreement the words "standard return" are used, they shall be understood as meaning the average annual railway operating income of the Company, computed in the manner provided in section 1 of the Federal Control Act, and ascertained and certified by the Commission.

(g) Wherever in this agreement the words "Director General" are used, they shall be understood as designating William G. McAdoo, or such other person as the President may from time to time appoint to exercise the powers conferred on him by law with relation to Federal Control, or such agents or agencies as the Direc-

tor General may from time to time appoint for the purpose; and whenever by this agreement any notice is to be given by the Director General, the same may be given in his name by any subordinate thereto duly authorized.

(h) Wherever the property of the company is referred to in this agreement it shall be understood as including all the property described in paragraph (a) of section 2 hereof, whether owned by or leased to the Company, and, where the context permits, all additions or betterments thereto or extensions thereof made during Federal Control; and as to all such leased property the Company shall have the benefit of and be subject to all the obligations and provisions of this agreement and shall be subject to all duties imposed by law in respect of such leased property.

(i) The descriptive words at the heads of the several sections of this agreement and the table of contents are inserted for convenience merely, and are not to be used in the construction of the agreement.

Section 2.—Property Taken Over.

Sec. 2. The Company's railroad and system of transportation of which the President has taken over possession, use, control and operation shall be considered as including:

(a) The following roads and properties:
 together with all branches and tracks, trackage, bridge and terminal rights, and lines of railroad owned by or leased to and operated by the Company as a part of its system of transportation, and all other property of the Company with the ap-

purtenances thereof, whether included in the foregoing list or not, the revenues of which were used, or which, if the property had been then owned by or leased to it and had then been revenue-bearing, would have been used, in computing the Company's standard return.

The Company reserves to itself the benefit of all leases (and of all rents and revenues accruing therefrom), of parts of its right of way, station grounds and other property, the revenues from which under the accounting rules of the Commission in force during the test period were properly creditable to "miscellaneous rent income" or "miscellaneous income." The Company grants to the Director General all its rights to terminate leases of any part of its right of way, yards or station grounds, and to occupy and use the premises of any such lessee when, in his judgment, the same is required for operating purposes. The Company shall have for its own benefit the right to lease for industrial sites or other purposes such portion of its right of way, yards or station grounds, or structures thereon, as are not required by the Director General for operating purposes, and to receive and enjoy the rentals therefrom, subject to the right of the Director General to cancel any such lease and to occupy the premises or structures whenever, in his judgment, the same are necessary for operating purposes. All expenses connected with any such property heretofore or hereafter leased or otherwise occupied, as in this paragraph provided, including taxes thereon which during the test period were not charged to railway tax accruals, shall be paid by the Company

while receiving the revenues therefrom.

(b) All materials and supplies on hand at midnight December 31, 1917
.....

(c) All balances in the account or accounts representing the total of "Net balance receivable from agents and conductors" as of midnight December 31, 1917:

Section 3.—Acceptance.

Sec. 3. (a) The Company accepts all the terms and conditions of the Federal Control Act and any regulation or order made by or through the President under authority of said act or of that portion of the act approved August 29, 1916, referred to in paragraph (a) of the preamble to this agreement which authorizes the President in time of war to take possession, assume control and utilize systems of transportation; and the Company further and expressly accepts the covenants and obligations of the Director General in this agreement set out and the rights arising thereunder in full adjustment, settlement, satisfaction and discharge of any and all claims and rights, at law or in equity, which it now has or hereafter can have, otherwise than under this agreement, against the United States, the President, the Director General or any agent or agency thereof, for compensation under the Constitution and laws of the United States, for the taking possession of its property, and for the use, control and operation thereof during Federal Control, and for any and all loss and damage to its business or traffic by reason of the diversion thereof or otherwise which has been or may be caused by said taking

or by said possession, use, control and operation.

No claim is made by the Company for compensation for the period between noon of December 28 and midnight of December 31, 1917; and the revenues of said period shall belong to the Company, and the expenses thereof shall be paid by the Company, allocated in both cases as provided in paragraph (b) of section 4 hereof.

(b) The Company, on its own initiative or upon the request of the Director General, shall take all appropriate and necessary corporate action to carry out the obligations assumed by it in this agreement or lawfully imposed upon it by or pursuant to the proclamation of December 26, 1917, or by the Federal Control Act.

(c) The Federal Control Act being in section 16 thereof expressly declared to be emergency legislation enacted to meet conditions growing out of war, nothing in this agreement shall be construed as expressing or prejudicing the future policy of the Federal Government concerning the ownership, control or regulation of the Company, or the method or basis of the capitalization thereof, and the recitals or provisions of this agreement shall not be used, as evidence or otherwise, by or against either party hereto in any pending or future proceeding which involves the acquisition or valuation of the Company's property or any part thereof; but nothing in this paragraph shall be taken or construed as affecting the settlement and discharge contained in paragraph (a) of this section, nor as limiting or qualifying any of the provisions of said paragraph for the purposes thereof, nor as limiting the use

of this agreement as evidence in any proceeding under this agreement or under the Federal Control Act.

Section 4.—Operation and Accounting during Federal Control.

Sec. 4. (a) All amounts received by the Director General under paragraph (c) of section 2 hereof and all other amounts whether received from the Company in cash or collected or realized upon by him from current operating assets belonging to the Company or arising from railway operations prior to midnight of December 31, 1917, shall be credited by him to the Company; and the Director General shall, to the extent of the cash so received or realized, pay and charge to the Company all expenses arising out of railway operations prior to January 1, 1918, including reparation claims, and, unless objected to by the Company, may pay and charge to the Company, any of such expenses, including reparation claims, in excess of the cash so received or realized. Balances of the above accounts shall be struck quarterly on the last days of March, June, September and December of each year, and the cash balance found on such adjustments to be due either party shall be then payable and, if not paid, shall bear interest at the rate of 6 per cent per annum, unless the parties shall agree upon a different rate; except that the rate of interest on any portion of a balance found due to the Company which is derived from cash in bank to the credit of such Company on interest, shall be adjusted in each case independently of this contract as the parties may agree.

(b) Railway operating expenses, reparation and other claims, hire of equipment and joint facility rents shall be allocated with reference to the time when incurred as between the period prior and subsequent to midnight of December 31, 1917, and as between the period of Federal Control and the period subsequent thereto. Railway operating revenues shall be allocated as between the period prior and subsequent to midnight of December 31, 1917, in accordance with the established accrual practices of the Company; except that where prior to midnight of December 31, 1917, the Company's part of a service on through business had been completed or carload lots on its own line had reached destination, the revenue of the Company for such service shall be allocated to it; but as to classes of traffic where in the opinion of the Director General such allocation will involve undue delay or undue absorption of accounting labor, such revenues shall be allocated in accordance with the established accrual practices of the Company. Like methods of accruing and allocating such revenues shall be made at the end of Federal Control.

(c) All expenditures made by the Director General during Federal Control for additions and betterments, exclusive of equipment, or for extensions begun prior to January 1, 1918, shall be charged to the Company, and if the completion of any such addition, betterment or extension is approved or ordered by the Director General, the Company shall be entitled under the provisions of paragraph (d) of section 7 hereof to interest on the cost thereof from the completion of the work; but no in-

terest (except to the extent that the same may be allowed and included in the compensation provided for in paragraph (a) of section 7 hereof) shall be due the Company upon any such expenditures for work done prior to January 1, 1918. Payments for all equipment ordered or under construction by the Company prior to January 1, 1918, but delivered on or after that date, shall also be considered as expenditures made by order or approval of the Director General under paragraph (d) of section 7 hereof. Interest during construction payable under this paragraph, and also interest during construction on the cost of any additions, betterments and road extensions made by the Company or at its expense to the Company's property during Federal Control, shall be included in the cost of the work.

(d) Cash receipts or disbursements and other items arising out of transactions which do not enter into or form a part of those used in determining the Company's standard return shall not be received or paid by the Director General unless such transactions are negotiated or conducted by his order for account of the Company and with its consent. When moneys are so received or paid by the Director General in connection with such corporate transactions they shall be credited or charged to the Company. There shall be an accounting of the amounts due by one party or the other under this paragraph at the end of each quarter year of Federal Control, and the amount so found due shall be then payable and if not paid shall bear interest as provided in paragraph (a) of this section.

(e) All sums paid by the Director General to maintain pension funds or pension obligations or practices, and all contributions to Young Men's Christian Associations of employees, employees' savings funds, relief funds or Associations, reading rooms or health, accident or death benefits for employees, shall be treated as a part of railway operating expenses during Federal Control.

(f) All salaries and expenditures incurred by the Company during Federal Control for purposes which relate to the existence and maintenance of the corporation, or to the properties of the Company not taken over by the President, or to negotiations, contracts, valuations or any business controversy with the Government or any branch thereof, and which are not specially authorized by the Director General, shall be borne by the Company; except that the expenses of valuation now being made by the Commission to the extent that they are, in the opinion of the Director General, necessary to comply with the valuation orders and other requirements of the Commission and to the coöperation of the Company in the making of such valuation, shall be paid by the Director General as a part of railway operating expenses. If the Company is dissatisfied with the ruling of the Director General it may appeal to the Commission, whose decision shall be final.

(g) The Director General shall furnish for additions, betterments and road extensions to the Company's property approved or ordered by him any of the materials and supplies taken over under paragraph (b) of section 2 hereof, or purchased by him and held for use in connec-

tion with the Company's property, in so far as, in his judgment, he can do so with due regard to his own requirements. Materials and supplies so furnished shall be charged to the Company at cost.

(h) The Director General shall at his option be substituted for the period of Federal Control in the place of the Company in respect of the benefits and obligations of contracts relating to operation in force January 1, 1918 (including contracts made by subsidiaries for the use and benefit of the Company and the right to abrogate or change and make new contracts with express companies for the period of Federal Control), except as to contracts between the Company and subsidiary companies which shall be considered and treated as arrangements or practices; and the Director General shall in like manner at his option be substituted for such period in respect of the benefits and obligations of arrangements and practices in force during the test period in regard to fuel, materials and supplies for the operation of the property described in paragraph (a) of section 2 hereof and of any additions, betterments and road extensions thereto, obtained from any mine, oil field or other source of supply owned or controlled by the Company, it being understood that under such arrangements or practices, if availed of by the Director General, he shall, to the extent necessary to offset any increase in the standard return growing out of the furnishing by the Company or of its subsidiaries, during the test period, of fuel, materials and supplies under an arrangement or practice at less than the then cost or the then market

value thereof for railroad purposes, be charged for such fuel, materials and supplies a price expressed in dollars or cents per unit below or above the then cost or the then market value thereof for railroad purposes (as the practice of the Company may have been) in the same amount that the prices charged the Company during the test period were below or above the then cost or the then market value thereof for railroad purposes; and at the request of the Director General or the Company the prices for fuel or materials supplied between December 31, 1917, and the execution of this contract shall be adjusted on the foregoing basis: *Provided, however,* That a source of supply which the Company had acquired to safeguard its own operations shall not be depleted or reduced for use on other transportation systems, except in cases of emergency to be determined by the Director General, in which event the quantity so used on other transportation systems shall be accounted for to the Company at the fair value thereof: *And provided further,* That materials and supplies secured under contracts which the Company had made for its own operations shall, so far as practicable, be used on the Company's property, and that, if used on any other transportation system, materials and supplies of like character shall be furnished by the Director General for use in making such additions, betterments and road extensions as shall be chargeable to the Company, and shall be charged at cost under such contracts.

(i) The Director General shall pay, or save the Company harmless from, all expenses incident to or

growing out of the possession, operation and use of the property taken over during Federal Control, except the expenses which under this agreement are to be borne by the Company. He shall also pay or save the Company harmless from all rents called in the monthly reports to the Commission equipment rents or joint-facility rents, and all judgments or decrees that may be recovered or issued against, and all fines and penalties that may be imposed upon, the Company by reason of any cause of action arising out of Federal Control, or of anything done or omitted in the possession, operation, use or control of the Company's property during Federal Control, except judgments or decrees founded on obligations of the Company to the Director General or the United States.

(j) Except as otherwise provided in this agreement, the Director General shall save the company harmless from any and all liability, loss or expense resulting from or incident to any claim made against the Company growing out of anything done or omitted during Federal Control in connection with, or incident to, operation or existing contracts relating to operation, and shall do and perform, so far as is requisite under Federal Control for the protection of the Company, all and singular the things, of which he may have notice, necessary and appropriate to prevent, because of Federal Control or of anything done or omitted thereunder, the forfeiture or loss by the Company of any of its property rights, ordinance rights or franchises, or of its trackage, lease, terminal or other contracts involving a facility of operation; but nothing herein con-

tained shall be construed to require the Director General to make any capital expenditure necessary to preserve a franchise or ordinance right not heretofore availed of by the Company. The Director General shall also save the Company harmless from any and all claims for breach of covenant heretofore entered into by the Company or by any predecessor in title or interest in any mortgage or other instrument in respect to insurance against losses by fire.

Nothing in this or in the preceding paragraph shall be construed to be an assumption by the Director General of, or to make him liable on, any obligation of the Company to pay a debt secured by a mortgage or any rent under a lease, except rents which during the test period were called in the monthly reports to the Commission equipment rents and joint facility rents and rents which under the accounting rules of the Commission in force during the test period were classified as operating expenses.

The Company shall, during Federal Control, pay the rents of any property, held by it under lease or contract, described in paragraph (a) of section 2 hereof, except the rents which during the test period were, under the rules of the Commission, classified as equipment rents or joint facility rents, and rents which were classified as operating expenses; which excepted rents shall be paid by the Director General. If the lease of, or right to use, any property described in paragraph (a) of said section 2 expires during Federal Control, the Company shall, if possible, and if requested by the Director General, renew the same; the rental,

however, of property in the excepted classes above mentioned shall be paid by the Director General. The Company shall pay the same amount of rent as was payable at the beginning of Federal Control for other property, the lease of or right to use which is renewed at the request of the Director General, but any increase in the rental of such other property shall be paid by the Director General.

(k) In carrying out the provisions of paragraphs (a), (b), (c) and (d) of this section and the provisions of section 6 hereof the Director General shall not settle any claim by or against the Company against the objection in writing of the president or of any other duly authorized officer of the Company. The conduct of all litigation before any court or commission arising out of such disputed claims, or out of operation prior to Federal Control, shall be in charge of the Director General's legal force and the expense thereof shall be paid by the Director General; but the Company may, at its own expense, employ special counsel in connection with any such litigation.

(l) Nothing in this agreement shall be construed as inconsistent with the provision in section 10 of the Federal Control Act that no process, mesne or final, shall be levied against any property under Federal Control, nor as a waiver by the United States of any claim that might otherwise be made by it that the rights of any State or subdivision thereof or of any individual or corporation have been abrogated or suspended by the taking over of the Company's property or by Federal Control.

(m) The Company shall have the

right at all reasonable times to inspect the books and accounts kept by the Director General relating to the property of the Company, or to the operation thereof, and the Director General shall during Federal Control furnish the Company with a copy of the operating reports relating to its property, and as soon as practicable after the end of each fiscal year shall furnish to the Company a complete list of its equipment as of the end of such fiscal year.

Section 5.—Upkeep.

Sec. 5. (a) During the period of Federal Control the Director General shall, annually, as nearly as practicable, expend and charge to railway operating expenses, either in payments for labor and materials or by payments into funds, such sums for the maintenance, repair, renewal, retirement and depreciation of the property described in paragraph (a) of section 2 hereof as may be requisite in order that such property may be returned to the Company at the end of Federal Control in substantially as good repair and in substantially as complete equipment as it was on January 1, 1918: *Provided, however,* That the annual expenditure and charges for such purposes during the period of Federal Control on such property and the fair distribution thereof over the same, or the payment into funds of an amount equal in the aggregate (subject to the adjustments provided in paragraph (c) and to the provisions of paragraph (e) of this section) to the average annual expenditure and charges for such purposes included under the accounting rules of the

Commission in railway operating expenses during the test period, less the cost of fire insurance included therein, shall be taken as a full compliance with the foregoing covenant.

(b) The Director General may expend such sums, if any, in addition to those expended and charged under paragraph (a) of this section (subject to the adjustments provided in paragraph (c) of this section) as may be requisite for the safe operation of the property described in paragraph (a) of section 2 hereof, assuming a use similar to the use during the test period and not substantially enhancing the cost of maintenance over the normal standard of maintenance of railroads of like character and business during said period; and the amount, if any, of such excess expenditures during Federal Control shall be made good by the Company as provided in paragraph (b) of section 7 hereof.

(c) In comparing the amounts expended and charged under the provisions of paragraphs (a) and (b) of this section with the amounts expended and charged during the test period, due allowance shall be made for any difference that may exist between the cost of labor and materials and between the amount of property taken over and the average for the test period, and, as to paragraph (a), for any difference in use between that of the test period and during Federal Control which in the opinion of the Commission is substantial enough to be considered, so that the result shall be, as nearly as practicable, the same relative amount, character and durability of physical reparation.

(d) At the request of either party there shall be an accounting of the amounts due by one party or the other under paragraphs (a) and (b) of this section at the end of each year of Federal Control and at the end of Federal Control.

(e) If during Federal Control any of the property described in paragraph (a) of section 2 hereof or any replacement thereof or addition thereto or betterment or extension thereof is destroyed or damaged otherwise than by fire or public enemies, and is not restored or replaced by the Director General, he shall reimburse the Company the value of the property destroyed or the amount of the damage at the time of the loss, and the cost of restoration or replacement, or said value or damage, as the case may be, shall be charged to annual railway operating expenses; it being understood that extraordinary losses caused by floods, explosions, train wrecks or accident are included in the matters covered by this paragraph, while ordinary losses due to such causes are included in the matters covered by paragraph (a) of this section: *Provided, however,* That if the Commission, on application of either party and after giving due consideration to the practice of the Company during the test period in respect to such matters and to any other pertinent facts and circumstances, determines that it is just and reasonable that the said cost or value shall be apportioned or extended over a period of more than one year, this shall be done, and so much of said cost or value as may be apportioned by the Commission over the period subsequent to Federal Control, shall be charged to the Company in the

final accounting at the end of Federal Control and shall be paid by it.

If, during Federal Control, any of the property described in paragraph (a) of section 2 hereof or any replacement thereof or addition thereto or betterment or extension thereof is destroyed or damaged by fire, and is not restored or replaced by the Director General, he shall reimburse the Company the value of the property destroyed or the amount of the damage at the time of the fire; and the cost of restoration or replacement, or said value or damage, as the case may be, shall be charged to annual railway operating expenses, but the same shall not be considered a charge to such expenses for the purposes specified in paragraph (a) of this section.

In case of any such loss or damage by fire, the Director General shall, if given written notice of the requirements of any mortgage, equipment lease or trust on the property so destroyed or damaged, make such restoration or replacement, or pay such value or damage, in such way as to meet the requirements of such mortgage, equipment lease or trust in the same manner as would have been proper in applying the proceeds of insurance on such property if it had been insured by the Company against loss or damage by fire in accordance with the terms of such instruments of lien; and a compliance with the written request of the Company in respect thereof shall be a full acquittance of any obligation of the Director General in the premises.

The foregoing parts of this paragraph are subject to the proviso that in case of loss or damage any additions and betterments made in con-

nection with or as a part of the restoration or replacement of property damaged or destroyed and chargeable under the accounting rules of the Commission in force December 31, 1917, to investment in road and equipment, shall be charged to and paid by the Company.

The Director General shall not be liable to the Company for any loss or damage due to the acts of public enemies.

(f) If any additions, betterments or road extensions are made to the property taken over or any equipment is added at the expense of the Company and with the approval or by order of the Director General during Federal Control, he shall expend and charge to railway operating expenses such sums either in payments for labor and materials or by payments into funds, as may be requisite for the proper maintenance, repair, renewal, retirement and depreciation of such property until the end of Federal Control.

(g) The Company shall have the right to inspect its property at all reasonable times during Federal Control, and the Director General shall provide reasonable facilities for such inspection.

(h) If any question shall arise, either during or at the end of Federal Control, as to whether the covenants or provisions in this section contained are being or have been observed, the matter in dispute shall, on the application of either party, be referred to the Commission which, after hearing, shall make such findings and order as justice and right may require, which shall be final as to the questions submitted and shall be binding on and observed by both parties

hereto, except that either party may take any question of law to the courts, if he or it so desires.

Section 6.—Taxes.

Sec. 6. (a) All taxes assessed under Federal or any other governmental authority for the period prior to January 1, 1918, including a proportionate part of any such tax assessed after December 31, 1917, for a period which includes any part of 1917 or preceding years, and unpaid on that date, all taxes commonly called war taxes which have been or may be assessed against the Company under the act of Congress entitled "An act to provide revenue to defray war expenses and for other purposes," approved October 3, 1917, or under any act in addition thereto or in amendment thereof, and all taxes which have been or may be assessed on property under construction, and all assessments which have been or may be made for public improvements, chargeable under the accounting rules of the Commission in force December 31, 1917, to investment in road and equipment, shall be paid by the Company; but upon the amount thus chargeable to investment interest shall be paid to the Company during Federal Control at the rate provided in paragraph (d) of section 7 hereof. Taxes assessed during construction on additions, betterments and road extensions made by the Company with the approval or by order of the Director General during Federal Control, shall be considered a part of the cost of such additions, betterments and extensions and shall, under the provisions of paragraph (d) of section 7 hereof, bear interest as a part of such cost

from the date of the completion of such additions, betterments or extensions. Assessments for public improvements which do not become a part of the property taken over shall bear interest from the date of the payment of such assessment.

(b) If any tax or assessment which under this agreement is to be paid by the Company is not paid by it when due, the same may be paid by the Director General and deducted from the next installment of compensation due under section 7 hereof. If any taxes properly chargeable to the Director General have been or shall be paid by the Company, it shall be duly reimbursed therefor.

(c) The Director General shall either pay out of revenues derived from railway operation during the period of Federal Control or shall save the Company harmless from all taxes lawfully assessed under Federal or any other governmental authority for any part of said period on the property under such control, or on the right to operate as a carrier, or on the revenues derived from operation, and all other taxes which under the accounting rules of the Commission in force December 31, 1917, are properly chargeable to "railway tax accruals," except the taxes and assessments for which provision is made in paragraph (a) of this section. The Director General shall pay or save the Company harmless from the expense of all suits respecting the classes of taxes payable by him under this agreement.

(d) If any such tax is for a period which began before January 1, 1918, or continues beyond the period of Federal Control, such portion of such tax as may be apportionable to the

period of Federal Control shall be paid by the Director General, and the remainder shall be paid by the Company.

(e) Whenever a period for which a tax is assessed cannot be definitely determined, so much of such tax as is payable in any calendar year shall be treated as assessed for such year.

Section 7.—Compensation.

Sec. 7. (a) The annual compensation guaranteed to the Company under section 1 of the Federal Control Act shall be the sum of dollars and cents (\$.) during each year and pro rata for each fractional part of a year of Federal Control, subject, however, to any increase or decrease in the standard return hereafter made by the Commission as provided in paragraph (d) of the preamble of this agreement.

(b) The said compensation shall be paid to the Company quarterly in equal installments on the last days of March, June, September and December of each year for the quarter ending therewith, except that the first three installments shall be due as of March 31, 1918, June 30, 1918, and September 30, 1918, respectively, but shall be paid upon the execution of this agreement; but from each installment there may be deducted any amount then due by the Company under paragraphs (a) and (d) of section 4 hereof, under paragraph (b) of section 5 hereof, and under paragraph (b) of section 6 hereof, and all amounts required to reimburse the United States for the cost of additions and betterments made to the property of the Company not

justly chargeable to the United States, unless such matters are financed or otherwise taken care of by the Company to the satisfaction of the Director General, and the Director General may apportion any such amounts to two or more subsequent installments: *Provided, however,* That said power to deduct amounts due or accruing under paragraph (b) of section 5 hereof and the cost of additions and betterments not justly chargeable to the United States shall not be so exercised as to prevent the Company from paying out the sums reasonably required to support its corporate organization, to keep up sinking funds for the Company's debts required by contracts in force December 31, 1917, to pay its taxes, to pay rents and other amounts (not chargeable to capital account) properly payable by the Company for leased or operated roads and properties, to pay interest which has heretofore been regularly paid by the Company, and interest on loans issued during Federal Control and approved by the Director General, nor shall such deduction be made in respect of additions and betterments which are for war purposes and not for the normal development of the Company, nor in respect of road extensions, nor in respect of amounts due under paragraphs (a) and (d) of section 4 hereof, in cases where the current assets, including materials and supplies, of the Company taken over by the Director General under the provisions of this agreement clearly exceed the current liabilities of the Company paid or assumed by the Director General under said section. In the event of a difference as to the fact whether ad-

ditions and betterments are for war purposes and not for the normal development of the Company, or as to whether an addition is a road extension, the question may, on application of either party, be referred to and determined by the Commission.

The power provided in this paragraph to deduct the amount due by the Company for the cost of additions and betterments not justly chargeable to the United States is further declared to be an emergency power, to be used by the Director General only when he finds that no other reasonable means is provided by the Company to reimburse the United States, and, as contemplated by the President's proclamation and by the Federal Control Act, it will be the policy of the Director General to so use such power of deduction as not to interrupt unnecessarily the regular payment of dividends as made by the Company during the test period.

Overdue installments of compensation, or balances thereof, provided for in this section shall bear interest from maturity at the rate of five per cent per annum, except that if the Director General shall, prior to the execution of this contract, have loaned the Company any money, the installments of compensation overdue at the date of the execution hereof shall bear interest from maturity at the same rate as that charged to the Company on such loans.

(c) During Federal Control the Company shall not, without the prior approval of the Director General, issue any bonds, notes, equipment trust certificates, stock or other securities, or enter into any contracts (except contracts in respect of corporate af-

fairs and property not taken under Federal Control), or agree to pay interest on its debt at a higher rate, or for rent of leased roads and properties a larger amount, than the rates and amounts payable as of, or required by contracts in force on, December 31, 1917. The Company may, however, procure the authentication and delivery to it under any mortgage or trust deed or agreement in force December 31, 1917, of bonds or notes issuable thereunder in respect of additions, betterments, extensions and equipment, or for refunding purposes.

(d) Upon the cost of additions and betterments, less retirements in connection therewith, and upon the cost of road extensions, made to the property of the Company during Federal Control, the Director General shall, from the completion of the work, pay the Company a reasonable rate of interest, to be fixed by him on each occasion. In fixing such rate or rates he may take into account not merely the value of money but all pertinent facts and circumstances, whether the money used was derived from loans or otherwise, provided that to the extent that the money is advanced by the Director General or is obtained by the Company from loans or from the proceeds of securities the rate or rates shall be the same as that charged by the Director General for loans to the Company or to other companies of similar credit.

(e) From its compensation so received or from other income, if adequate for the purpose, the Company shall make all payments of interest, rents (other than the equipment rents, joint facility rents and rents classified as operating expenses, men-

tioned in paragraph (j) of section 4 hereof), and other sums necessary to prevent a default under any mortgage or lease of any of the property described in paragraph (a) of section 2 hereof; and if at any time during Federal Control the Company, by virtue of any change in the right of possession (subject to the rights of the United States) to any of said property or otherwise, shall no longer be entitled as between itself and any other person or corporation to receive the entire compensation herein provided, such compensation shall be apportioned and paid, as between the parties entitled thereto, as justice and right may require.

Section 8.—Claims for Losses on Additions, etc.

Sec. 8. (a) Prompt notice in writing, except as provided in paragraph (d) of this section, shall be given the Company of the making or ordering of any additions, betterments or road extensions, including terminals, motive power, cars or other equipment to or for the property of the Company costing more than one thousand dollars, with an estimate of the cost thereof. Such notice shall be given before the beginning of the work or the acquisition of the property whenever in the judgment of the Director General it is practicable to do so. Within a reasonable time after the completion of the work or the acquisition of the property, a written statement of the final cost thereof shall be given the Company. There shall be furnished the Company, as soon as practicable after the end of each month, a written statement of all expenditures estimated

to cost one thousand dollars or less chargeable to investment in road and equipment made during the month, with a brief description of the work done or of the property acquired; and such statement shall constitute all the notice of additions and betterments costing one thousand dollars or less required by (b) and (c) of this section. The notices provided in this paragraph may be given to the president of the Company unless the Company designates some other officer to receive the same, in which event the notice shall be given to such other officer.

(b) Any claim of the Company for loss accruing to it by reason of expenditures for additions and betterments made to the property of the Company during Federal Control in connection with or as a part of the work of maintaining, repairing and renewing the Company's property and chargeable under the accounting rules of the Commission in force December 31, 1917, to investment in road and equipment, except such expenditures as are incurred in connection with the replacement of buildings and structures in new locations, may be determined by agreement between the Director General and the Company, or, failing such agreement, as to the fact or amount of such loss, the questions at issue may, upon the application of either party at any time after the filing of the statement of claim hereinafter referred to, be ascertained in the manner provided in section 3 of the Federal Control Act: *Provided, however,* That no loss shall be claimed by the Company and no money shall be due to it in respect of such additions and betterments upon the ground that the actual cost

thereof at the time of construction was greater than under other market and commercial conditions; and for the purpose of determining such controversy the amount paid for any addition or betterment shall be deemed the fair and reasonable cost thereof and shall be taken as the basis for such determination; nor unless the Company, within sixty days of notice to it that the work will be done, shall give the Director General notice of objection thereto and shall file with the Director General a statement of its claim within ninety days after notice of the completion of the work.

(c) Any claim of the Company for loss accruing to it by reason of any additions and betterments which are not made in connection with or as a part of the work of maintaining, repairing and renewing the Company's property, or accruing to it in connection with maintenance in the replacement of buildings and structures in new locations, or by reason of road extensions, terminals, motive power, cars or other equipment made to or provided for the property of the Company during Federal Control, may be determined by agreement between the Director General and the Company, or failing such agreement as to the fact or amount of such loss, may, by proceedings instituted not later than six months after the end of Federal Control, be ascertained in the manner provided in section 3 of the Federal Control Act: *Provided, however,* That no loss shall be claimed by the Company and no money shall be due to it in respect of such additions, betterments, road extensions, terminals, motive power, cars or other equipment mentioned in this paragraph upon the ground that

the actual cost thereof at the time of construction or acquisition was greater than under other market and commercial conditions; and for the purpose of determining such controversy the amount paid for any additions, betterments, road extensions, terminals, motive powers, cars or other equipment shall be deemed the fair and reasonable cost thereof and shall be taken as the basis for such determination; nor unless within sixty days after notice to the Company of such construction or acquisition written notice is given to the Director General by the Company that it will claim a loss in respect thereof. With and as a part of such notice the Company shall state its objections to such construction or acquisition as far as reasonably practicable at the time. Nothing in this agreement shall be construed as barring the United States from contending that no loss within the meaning of the Federal Control Act accrued to the Company by reason of any additions, betterments or road extensions made during Federal Control by order or approval of the Director General, if it is made to appear that the Company itself but for Federal Control should in the exercise of sound judgment have made such addition, betterment or road extension.

(d) Where additions, betterments or road extensions or terminals, motive power, cars or other equipment have been made to or provided for the property of the Company during Federal Control but prior to the execution of this agreement, the Director General shall not be required to give the notice thereof provided for in paragraph (a) of this section and notice by the Company of any claim

of loss in respect thereto may be given the Director General within ninety days after the execution hereof; and such claims shall thereafter be proceeded with in the manner provided in paragraph (b) or paragraph (c) of this section, as the case may be.

(e) The Director General shall reimburse the Company for the amount of loss ascertained under this section with a power adjustment of interest thereon.

(f) The Director General shall not acquire any motive power, cars or other equipment at the expense, or on the credit, of the Company in excess of what in his judgment is necessary, in addition to its then existing equipment, to provide for the traffic requirements of its own system of transportation; but this provision shall not prevent the Director General, after the acquisition of such equipment, from using the same, or any part thereof, on the line of any other transportation system operated by him.

Section 9.—Final Accounting.

Sec. 9. (a) At the end of Federal Control all the property described in paragraph (a) of section 2 hereof shall be returned to the Company, together with all repairs, renewals, additions, betterments, replacements and road extensions thereto which have been made during Federal Control, except as any part thereof may have been destroyed or retired and not replaced, in which case the provisions of section 5 hereof shall govern and except that the Director General shall not be obliged to restore or replace property destroyed or damaged by the acts of public enemies.

(b) At the end of Federal Control the Director General shall return to the Company all uncollected accounts received by him from the Company and also materials and supplies equal in quantity, quality, and relative usefulness to that of the materials and supplies which he received and to the extent that the Director General does not return such materials and supplies he shall account for the same at prices prevailing at the end of Federal Control. To the extent that the Company receives materials and supplies in excess of those delivered by it to the Director General it shall account for the same at the prices prevailing at the end of Federal Control, and the balance shall be adjusted in cash.

(c) The total amount of the account "Net balance receivable from agents and conductors" at the end of Federal Control may be turned over by the Director General to the Company. He may also turn over all assets which have accrued out of operation; and the Company shall, to the extent of the cash received or realized from such assets, pay and charge to the Director General all expenses arising out of railway operations during Federal Control, including reparation and other claims in excess of the cash so received or realized. On the first day of the third month following the termination of Federal Control an accounting between the parties shall be had, and so on the first of each third month thereafter. Any balance found due either

party shall be payable as of the date on which the account is stated and shall bear interest until paid.

(d) At the end of Federal Control there shall be paid to the Company any balance then remaining unpaid of the cash received from the Company at the beginning of or during Federal Control, together with any unpaid interest which may have accrued upon the same. There shall also be paid to the Company any funds created under the provisions of this agreement, except to the extent that such funds may have been properly used under this agreement.

(e) Wherever under any provision of this section there is to be an adjustment of interest, it shall be at the rate of five per cent per annum unless the parties shall in any case agree on a different rate.

(f) After Federal Control no claim by or against the Director General shall be settled by the Company against the written objection of the Director General or the Attorney General of the United States. The conduct of all litigation before any court or commission arising out of such disputed claims or out of operations during Federal Control shall be in charge of the Company's legal force and the expense thereof shall be paid by the Company; but the Director General or the Attorney General may, at the expense of the United States, employ special counsel in connection with any such litigation.

Execution.

APPENDIX TO CHAPTER XI

Observations of Eastern Railroad Executives as to Condition of Property at end of 1917.

In November, 1917, when the eastern railroads were seeking an increase in rates, the railroad executives testified as to the condition of their property, and as to the need of additional revenue in order to enable them to make additional expenditures upon it. Samuel Rea, President of the Pennsylvania, one of the principal spokesmen of the eastern railroads, says:

So far as our passenger equipment is concerned, it has been impossible, owing to the demands that are made upon it due to abnormal increase in passenger traffic and troop movements, to take any passenger cars out of service except for repairs necessary for safety, or when the condition of the paint is such that the lack of paint will result in the rapid deterioration of the car. This has resulted in deferring many usual and necessary expenses.

It is our experience that a passenger car should be brought into the shops once a year and overhauled and painted, if its maintenance cost is to be normal and its life prolonged. When they go beyond this time the cost of general repairs is disproportionate to the length of time between shoppings, and our action in this respect has created a deferred maintenance, not charged into our expenses, of approximately \$1,144,000.

Everything has been done that could be done toward keeping our freight car equipment in condition, but it has been in the service so continuously that comparatively little general repair work has been done. A great many of our cars are in need of general repairs, but they have been kept in service by patching. This, of course, merely postpones the time when these general repairs must be made. This, we estimate, will cost \$1,750,000.

The aggregate amount of deferred maintenance of equipment is therefore \$3,050,000.

And again he says:

The railroads are operating with insufficient and necessarily inexperienced labor, due largely to inexperience.

Speaking of inefficient labor, he says further:

This, in itself, is expensive and will be relatively more so during the winter months. Locomotives improperly prepared for road service break down en route involving delays to traffic and expense in rectifying, which, if the work had been properly done, would have been avoided.

Those familiar with conditions at the time will recall, as illustrative of the observations of President Rea, that in the latter part of 1917 the passenger travel between New York and Washington was greatly inconvenienced by the lateness of the hour at which the sleeping cars on the night trains were made available for the use of passengers. These night trains were supposed to be open in the New York station and the Washington station, respectively, at 10 o'clock p.m. and were scheduled to depart about midnight. But at the time mentioned these trains frequently could not be placed in the station, or open for the accommodation of passengers, until after midnight, the schedule time for departure. This was understood to be due to the bad condition of the locomotive

tives, which were therefore unable to do either the road work or the yard work in the manner necessary in order that the trains might be placed in the stations at the proper hour.

Mr. Rea continues:

No one can doubt but that we are receiving less production per dollar from employees, at the present time, and if we consider efficiency, less work is being performed, even on the per hour basis, without respect to the rate of wages.

And again he says:

The Pennsylvania Railroad System, like the eastern carriers as a whole, is in this situation:

(a) Continuous increases in the cost of labor, fuel, supplies, taxes and of obtaining new capital;

(b) Inability to secure and retain efficient labor;

(c) Curtailment of maintenance expenses, which curtailment is due in part to inability to secure necessary labor and materials.

With reference to condition of way and structures, Mr. Rea says:

For a number of years it has been the policy of the Pennsylvania system to prepare a budget or program at the beginning of the year, showing its requirements in the matter of maintenance of roadway and structures. This method was followed in the year 1917; and, in accordance with the accounting rules of the Commission, we have, as in the past, charged our program to operating expenses, and have in our operating reserve accounts unexpended \$7,945,000.

This latter amount, however, does not include \$2,300,000 on account of labor required to install the rails, ties, ballast, and other track materials, the cost of which has or will be charged out during the year. This amount is properly chargeable as deferred maintenance, as the work is urgently needed, and if not expended this year must be made up when labor and other conditions permit. In addition

to this item of labor, we have deferred some and slowed down other expenditures which involve charges to expenses.

In this general rate inquiry in November, 1917, Daniel Willard, President of the Baltimore & Ohio, speaking for his company, says with reference to condition of freight cars:

The condition of the Baltimore & Ohio property as it compares with a year ago is as follows: Its equipment, cars, and engines are better ostensibly; we have fewer cars waiting for repairs, fewer engines waiting for repairs, than a year ago or at any other period. The condition of the cars is not wholly reflected by the fact that a smaller percentage is awaiting repairs, because heavy repairs that we should have made, and would have made ordinarily, we have put off and have kept the cars running with lighter and substitute repairs which cover a short period but can not be continued indefinitely. But it can be said that our freight equipment, all of our equipment, is in as good condition as we could reasonably hope to keep it.

As to the general maintenance situation and as to the condition of way and structures, Mr. Willard says:

We are getting less out of labor, and I think you will understand why that should be so. Of course, under the operation of the draft a million and a half, upwards, of the very best men between 21 and 31 have gone to the colors; they were withdrawn from railroads, among other places, and they were the very best men for our industrial work. They are gone. Then, men over 31 have gone, men with the spirit of adventure. They left their employment. They go into the shops paying higher wages, and after these various processes have worked out we have what is left, because our wages are lower; we are not paying the wages that the steel plants and munition factories are paying, and, in fact, other undertakings are paying at the present time, and we are not getting the service.

Our figures show that in August our turnover in the mechanical department was 18 per cent, and in the maintenance of way department it was 24 per cent—one-quarter of all the men left that branch. It is impossible, then, for labor to change forces to that extent and still get efficient results. That is true of our clerks. We are not paying our clerks as much as clerks are being paid in other lines of employment, and the result is that they are shifting constantly. That is reflected in more clerical work, which reflects itself in claims for damages. Then, again, in our warehouses, we are changing there constantly. The freight is less carefully stored and packed in the cars, and that means more claims. I suppose our freight claims this year may be a million dollars more than they were last year, due to less efficient labor.

And again:

Our track and buildings are not as good as they were a year ago. We have

in effect today one million and three-quarters deferred maintenance in that department this year. Our figures will probably show, December 31, that we have actually spent one-half million dollars less on maintenance of way and structures than a year ago. In connection with that, the wages and material we have used cost from 20 to 25 per cent more; so that, putting those two items together, it shows that we have actually used men and material equal to about a million and three-quarters less on our property.

That has not made the property unsafe. We have painted fewer buildings; we have done less mowing on right of way; we have not had as many men keeping the track smooth. You would not get as smooth a ride over our railroad from here to Philadelphia or to Chicago, but you would probably get just as safe a ride. But we have not kept it up where we think it should be kept. It is not as good as it ought to be.

Comments on Railroad Administration's Division of Operation as to Condition of Equipment at the Beginning of Federal Control.

The report for 1918 of the Mechanical Department of the Division of Operation of which Carl R. Gray was Director, says:

One of the prime causes for the necessity of Government control of railroads and one of the most serious conditions the Railroad Administration was called on to correct when assuming control, was the general bad condition of locomotives and cars.

An extended period of heavy business, high prices for material, difficulty in obtaining sufficient labor, and the loss of many of their experienced mechanics through the selective draft, followed by an early and unusually severe winter, had resulted in a general defective condition of locomotives and cars which had reached a point where repair tracks were blocked and terminals congested with bad-order cars, and shops and round-houses were so crowded with locomotives

awaiting repairs that proper facilities for maintaining the locomotives actually in service were no longer available.

Added to this the congestion due to failure of shippers to unload promptly cars consigned to them, many of which needed repairs before they could be reloaded, had made conditions at important terminals and shop points such that the mechanical departments were unable to cope with them.

This report then refers to the reports made by the personnel of the Interstate Commerce Commission Bureau of Locomotive Inspection and Bureau of Safety, and says:

These reports showed that in addition to the congestion caused by failure of shippers to unload cars promptly that a serious situation existed on account of the number of bad-order cars at various

terminals and also on account of the general defective, run-down condition of motive power, which, together with overcrowded and inadequate shops and roundhouses, had resulted in trains being

held at terminals on account of shortage of efficient motive power, and also seriously slowed up movement on the road, often to the extent of blocking several divisions.

Observations of Regional Directors on Maintenance during Federal Control.

The Regional Directors were practical men of long railroad experience and naturally interested in the condition of the railroad properties which at the end of 1919 were on the point of being turned back to the railroad corporations. It will be borne in mind that almost all of the Regional Directors again became connected at the end of Federal Control with the railroad corporations which they were serving at the beginning of Federal Control. If the railroads had been in a seriously undermaintained condition at the end of Federal Control, these Regional Directors would have known it and would not have made statements in their reports inconsistent with that fact.

Regional Director Hardin for the Eastern Region in his report for 1919 says:

Speaking in general and with the exception of the shortage in the amount of major materials used, the roads in the region as a whole have been reasonably well maintained.

After explaining some of the difficulties encountered, and the efforts made to make the maintenance correspond with the standard of the test period, he says:

In most cases results have been reasonably satisfactory except where the shortage in tie supply, rail requirements, or other conditions over which we have had no control have made it impossible to apply the necessary materials.

Regional Director Baldwin for the Allegheny Region in his report for 1919 indicates that the condition of equipment is satisfactory "from viewpoint of both comparisons and necessities," and says:

Way and structures have been well maintained, except that ties and rails have not been available to permit normal renewals on some of the important roads.

Regional Director Aishton for the Northwestern Region says in his report for 1919 with reference to maintenance of way and structures:

It was necessary to regulate the maintenance of way work in such a manner that the obligation of the Government under its contract with the railroads would not be exceeded, except where additional work would be required as a matter of safety. Budgets were accordingly prepared at the beginning of the season, based upon the relative quantities of labor and material, together with the monthly expenditures, required to carry out the work, which was limited to these budgets.

Maintenance of properties has been watched very closely, and the same policies as were practiced prior to Federal Control were continued, resulting in the maintenance of properties in about the same condition as they were maintained by the railroads.

Regional Director Holden, for the Central Western Region, says in his report for 1918:

All lines have reported that their general maintenance conditions compare favorably with a year ago, particularly as far as track and roadbed are concerned.

In his report for 1919 he shows in detail the active attention paid to the maintenance of cars and locomotives and the transfer from time to time of equipment needing repair from one railroad to another in order to utilize the shops to the best advantage. He shows that on November 1, 1919, 22 per cent of the power was good for 12 months' or more service as compared with 28 per cent in November, 1918, and 36 per cent was good for from 6 to 12 months' service as compared with 35 per cent in 1918. As to freight cars he shows that on January 4, 1918, the percentage of bad-order freight cars was 4.95 per cent and on November 22, 1919, it was 4.53 per cent.

As to maintenance of way and structures he says that in general the work "has progressed with greater expedition than characterized the year 1918, due to a better supply of labor in the earlier months." He says supplies of ties were generally good, the supply of rail was less favorable, and the use of ballast was not quite so extensive. He says:

The railroads generally have been well maintained, and in some instances the shortage of a normal program in 1918 has been overcome in 1919, while in a few instances the apparent overexpenditures of 1918 have been overcome in 1919.

Regional Director Bush, for the Southwestern Region, in his report for 1918, says: "The general condition of locomotives in this region is good," indicating 16 per cent were awaiting repairs, and he indicated that 2.8 per cent of the freight cars were in bad order. As to way and structures he says:

Tracks, bridges, and other structures

have been safely and adequately maintained, although, due to shortage of material and labor, some of the branch lines have not been maintained to the full standard which is desirable. The main lines of railroad, however, are in condition equal to that prevailing at close of calendar year 1917.

Buildings generally on all of the roads have been maintained to proper standard, and the usual program of repairs and painting has been to a large extent carried out. Practically all of the right of way on main lines, and for the most part on branch lines, has been trimmed, and fences and cattle guards maintained to a proper state of efficiency.

In Regional Director Bush's report for 1919 he indicates that locomotives have been taxed to a maximum and that shops have been operated to their capacity, except when interrupted by strike, but that it has not been possible to improve the general condition of locomotives over the preceding year. He indicates that 4 per cent of the freight cars are in bad order.

As to maintenance of way and structures he says:

Due to the comparatively small amount of new steel rail rolled, it has not been possible to carry out the desired program of rail renewals and replacements, but repair rail has been used to the best advantage and main line tracks are in good condition. While branch line tracks and sidings have been maintained, in a condition safe for operation, additional rail could have been used to advantage on some railroads had it been available.

Bridges, buildings, and other structures are in good condition. The roadway has been properly maintained, although a large amount of work has been required and a considerable increased expenditure made necessary by the excessive rainfall throughout the southwest not only in the spring of this year, but particularly the fall and winter months.

Regional Director Maher in his report for the Pocahontas Region for 1919 mentions as to maintenance of equipment that during the first half of the year reduced forces were working owing to light traffic, but that in September both car department and locomotive department employees were put on a nine-hour basis. He shows that on January 1, 1918, 282 locomotives were out of service for repairs, and on November 29, 1919, 393 locomotives were out of service for repairs. He shows that on January 1, 1918, 5,485 freight cars were in bad order, and on No-

vember 29, 1919, 5,706 freight cars were in bad order.

As to way and structures he states that "quantities of ties and railroad ballast placed were considerably in excess of 1918, owing to scarcity of materials as well as labor in 1918."

The annual report for 1919 of Regional Director Winchell for the Southern Region makes no comment on the maintenance of way and structures but as to equipment says:

There has been a general shortage of skilled mechanics throughout this year; however, taking the region as a whole the equipment has been well maintained and is now showing general improvement.

APPENDIX TO CHAPTER XII

United States Railroad Administration, Consolidated Statement of Receipts and Expenditures, Twelve Months ended December 31, 1918.

<i>Receipts</i>	<i>Amount</i>	
Revolving fund	\$500,000,000	
Net Income for 1918 before payment of compensation to carriers	716,233,000	
<i>Plus items charged to income but not paid</i>		
Depreciation and other reserves	250,965,000	
Excess of unpaid liabilities charged to ex- penses over uncollected assets credited to income	200,506,000	
Total Receipts (Cash basis)		\$1,667,704,000
 <i>Payments</i>		
Compensation paid	\$253,278,000	
Loans to carriers	183,264,000	
Investments	103,326,000	
Corporate liabilities paid in excess of assets collected	112,162,000	
Additions and betterments	445,500,000	
Allocated equipment	117,788,000	
Increase in material and supplies	118,088,000	
Miscellaneous adjustment	11,760,000	
Total Payments (Cash basis)		\$1,345,166,000
Cash on hand December 31, 1918		\$ 322,538,000

Note: Current accounts payable of the carriers at December 31, 1918, were approximately \$792,000,000 as compared with current accounts receivable of \$543,000,000, an excess of current liabilities of \$249,000,000.

APPENDIX TO CHAPTER XIII

EQUIPMENT

Estimated Cost of Construction and Purchase of Equipment.

New York Barge Canal.

<i>Kind Constructed</i>	<i>Number</i>	<i>Capacity</i>	<i>Estimated Cost</i>
Steel Barges	51	650 tons	\$1,954,180.70
Concrete Barges	21	600 tons	633,441.41
Self-Propelled Barges	20	550 tons	1,739,996.00
Total Constructed			4,327,618.11
Designer's supervision, etc.			38,839.50
Total			\$4,366,457.61
<i>Purchased</i>			
Tugs { 2 Steel—100 Horse Power 2 Steel—150 Horse Power 1 Wood—85 Horse Power }	5	...	\$ 56,500.00
Wooden Barges	3	550 tons	59,390.00
Total Purchased			\$ 115,890.00
Total Constructed and Purchased			\$4,482,347.61

Lower Mississippi.

<i>Constructed</i>			
Steel Barges	40	2,000 tons	\$4,260,179.00
Towboats (1,800 Horse Power)	6	...	2,163,050.00
Total Constructed			\$6,423,229.00
<i>Purchased</i>			
Steel Cargo Barges	3	1,000 tons	\$ 458,500.00
Steel Towboats	2	600 tons	
Flat Barges	2	...	
Electric Conveyors	4	200	18,472.00
Total Purchased			\$ 476,972.00
Conversion of one barge			85,000.00
Total Constructed and Purchased			\$ 561,972.00
			\$6,985,201.00

Warrior River.

<i>Constructed</i>	<i>Number</i>	<i>Capacity</i>	<i>Estimated Cost</i>
Wooden Barges	20	500 tons	\$ 121,700.00
Steel Towboats—400 Horse Power	3	...	412,850.00
Self-Propelled Barges	4	1,800 tons	979,470.00
Total Construction			\$1,514,020.00
<i>Purchased</i>			
Steel Self-Propelled Barges	6	825 tons	\$ 322,500.00
Gantry Coal Towers	2	...	200,000.00
Repairs and betterments to			
Wooden Towboats 185 Horse Power	3	...	\$ 130,741.00
Wooden Barges	11	475 tons	
Derrick Barges	12	550 tons	
	2	...	
Repairs and betterments			130,000.00
Total Purchased and conditioned			\$ 783,241.00
Total Constructed and Purchased			\$2,297,261.00

Recapitulation.

New York Barge Canal	\$ 4,482,347.61
Lower Mississippi	6,985,201.00 ¹
Warrior River	2,297,261.00 ²
Grand Total	\$13,764,809.61
Cost as reported in Director General Davis' Report (1924)	\$13,667,002.07

¹ Does not include \$40,000 purchase of warehouse and facilities at St. Louis, Mo.² Does not include \$51,900 for 20 Cargo Retainers, installation of stiff leg derrick at Cordova & Pauline St. Wharf, New Orleans.

APPENDIX TO CHAPTER XIV

Letter from Director General McAdoo to the Head of the Shopcrafts.

February 14, 1918

Dear Mr. Wharton:

I have your letter of January 29th, relative to securing the necessary skilled labor to enable the railroads to operate on an efficient basis while operated by the Government, and the desire to coöperate expressed therein is appreciated. In line therewith, the following general outline of a basis on which to work during the period of the war is believed to be equitable, and I shall direct the Managements of the several railroads to put the same into effect. The methods of increasing production provided in Items 1, 2 and 3 to be applied as needed, in the order named:

1. The hours of labor in shops and roundhouses to be governed by the necessities as indicated by the general conditions of equipment. At shops and roundhouses now working one shift which totals less than 70 hours per week, an increase, preferably on a seven-day basis, may be made. Where desired, working hours may be so arranged that men will be released at 4:00 P.M. on one day each week. Existing working agreements to govern the rate, subject to the action of the Railroad Wage Commission.
2. All apprentices who have served three years may be promoted to mechanics and paid the going rate of wages for that position.

Such promoted apprentices to be given the right of practical experience on work of their respective trades to which they had not been advanced during the three-year period.

3. Helpers in their respective trades who have had five or more years' experience may be promoted to classification of mechanics; they to receive mechanics' rate and be given an opportunity to learn all branches of the trade.

The duly authorized committeeman of each trade in each shop covered by agreement shall be consulted, and mutual understanding arrived at in promoting helpers, and the ratio of helpers to be promoted, to the number of mechanics, in any one trade in any one shop, shall not exceed 20 per cent.

The International Officers and General Chairmen of each trade on each road covered by agreements shall be furnished a complete record of the men promoted.

4. Mechanics applying for employment will not be denied such employment for any cause other than inability to perform the work; this preference rule to be in effect as long as three-year apprentices or promoted helpers are employed at mechanics' rates.
5. Where a reduction is made in

the force of mechanics, promoted helpers in accordance with their seniority shall be set back first; then advanced apprentices; no mechanics to be laid off until all such promoted helpers and apprentices have been set back.

6. The promotions above referred to are to meet an emergency caused by the war, and shall cease at the close of the war.

Please be assured of my appreciation of the patriotic spirit in which you have met my suggestions in this important matter.

Cordially yours,

(Signed) W. G. McAdoo,
Director General of Railroads.

A. O. WHARTON, Esq.,

*President, Railroad Employees
Department, American Federation of Labor.*

General Order No. 8.

Washington, February 21, 1918.

To correct wrong impressions that may exist regarding the employment and conditions of labor in railway service, it is,

Until further order directed that:

1. All acts of Congress to promote the safety of employees and travelers upon the railroads, including acts requiring investigation of accidents on railroads, and orders of the Interstate Commerce Commission made in accordance therewith, must be fully complied with. These acts and orders refer to hours of service, safety appliances and inspection.

Now that the railroads are in the possession and control of the Government, it would be futile to impose fines for violations of said laws and orders upon the Government, therefore it will become the duty of the Director General in the enforcement of said laws and orders to impose punishments for willful and inexcusable violations thereof upon the person or persons responsible therefor, such punishment to be determined by the facts in each case.

2. When the exigencies of the service require it, or when a sufficient

number of employees in any department are not available to render the public prompt transportation service, employees will be required to work a reasonable amount of overtime. So far as efficient and economic operation will permit, excessive hours of employment will not be required of employees.

3. The broad question of wages and hours will be passed upon and reported to the Director General as promptly as possible by the present Railroad Wage Commission. Pending a disposition of these matters by the Director General, all requests of employees involving revisions of schedules or general changes in conditions affecting wages and hours, will be held in abeyance by both the managers and employees. Wages when determined upon, will be made retroactive to January 1, 1918, and adjusted accordingly. Matters of controversy arising under interpretations of existing wage agreements and other matters not relating to wages and hours will take their usual course, and in the event of inability to reach a settlement will be referred to the Director General.

4. In Order No. 1, issued December 29, 1917, the following appeared:

"All officers, agents, and employees of such transportation system *may* continue in the performance of their present regular duties, reporting to the same officers as heretofore and on the same terms of employment."

The impression seems to exist on some railroads that the said order was intended to prevent any change in the terms of employment during governmental operation. The purpose of the order was to confirm all terms of employment existing upon that date, but subject to subsequent modifications deemed advisable for the requirements of the service. Any contrary impression or construction is erroneous. Officers and employees will be governed by the construction here given.

5. No discrimination will be made in the employment, retention or conditions of employment of employees because of membership or non-membership in labor organizations.

The Government now being in control of the railroads, the officers and employees of the various companies no longer serve a private interest. All now serve the Government and the public interest only. I want the officers and employees to get the spirit of this new era. Supreme devotion to country, an invincible deter-

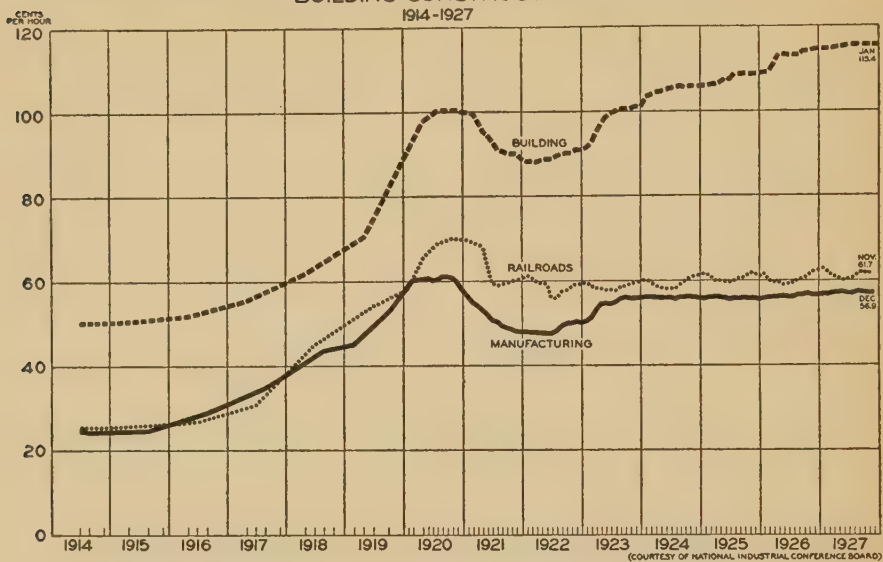
mination to perform the imperative duties of the hour while the life of the Nation is imperiled by War, must obliterate old enmities and make friends and comrades of us all. There must be coöperation, not antagonism; confidence, not suspicion; mutual helpfulness, not grudging performance; just consideration, not arbitrary disregard of each other's rights and feelings; a fine discipline based on mutual respect and sympathy; and an earnest desire to serve the great public faithfully and efficiently. This is the new spirit and purpose that must pervade every part and branch of the national railroad service.

America's safety, America's ideals, America's rights are at stake. Democracy and liberty throughout the world depend upon America's valor, America's strength, America's fighting power. We can win and save the world from despotism and bondage only if we pull together. We cannot pull apart without ditching the train. Let us go forward with unshakable purpose to do our part superlatively. Then we shall save America, restore peace to a distracted world, and gain for ourselves the coveted distinction and just reward of patriotic service nobly done.

W. G. McADOO,

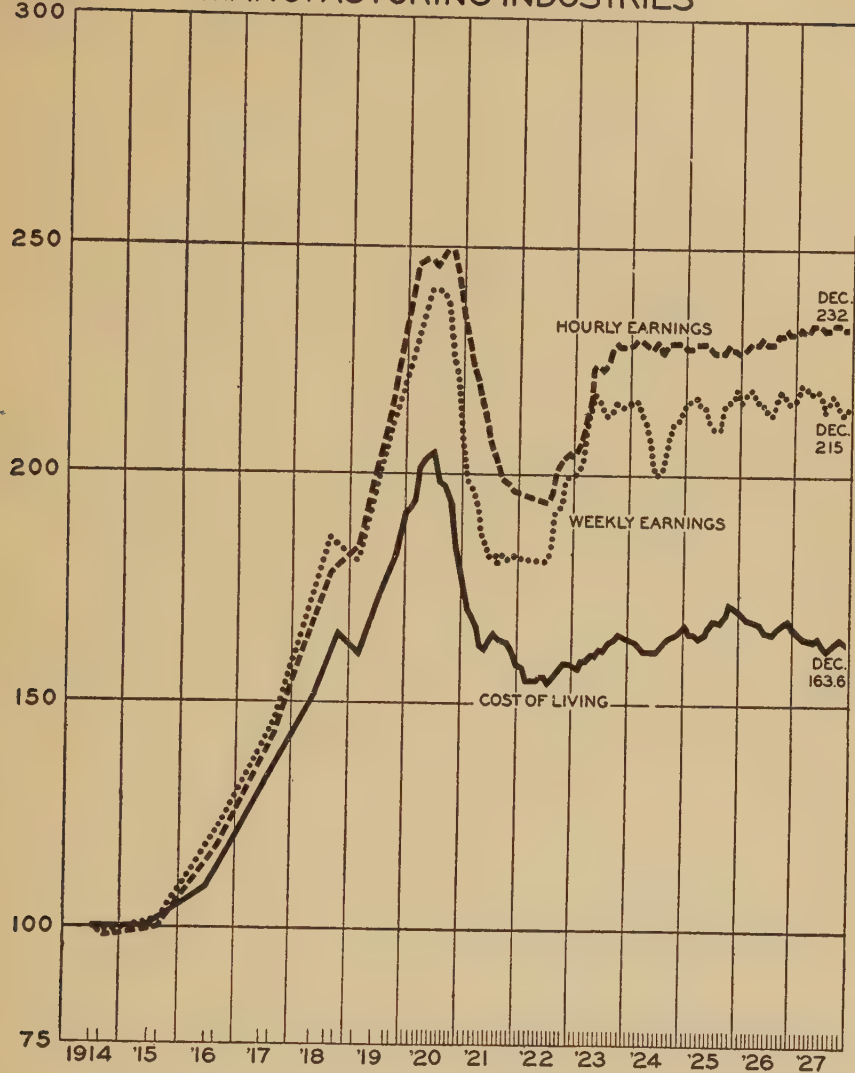
Director General of Railroads.

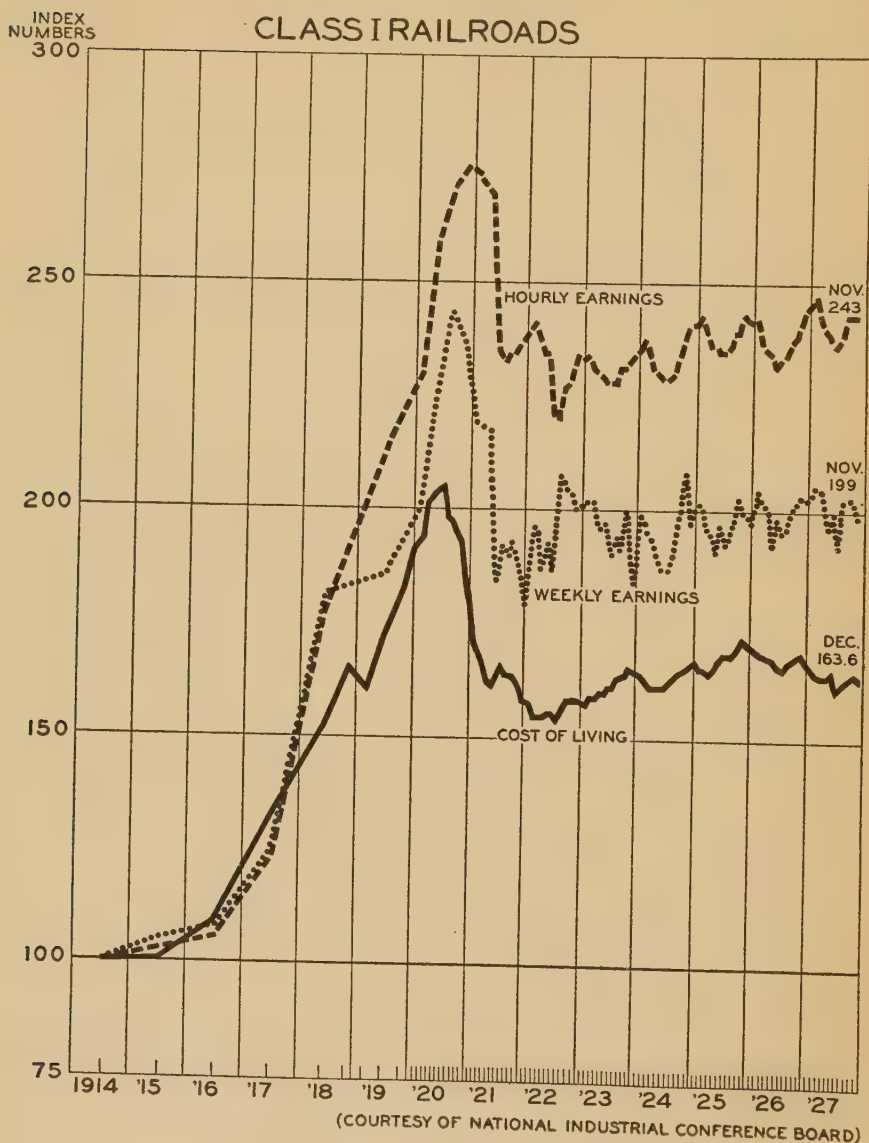
AVERAGE HOURLY WAGES, MANUFACTURING INDUSTRIES, RAILROADS AND BUILDING CONSTRUCTION



*Earnings and Cost of Living.*INDEX
NUMBERS
300

MANUFACTURING INDUSTRIES



Earnings and Cost of Living.

Director General Hines' Proclamation Concerning California Strike.

Washington, D. C.,
August 28, 1919.

To Public Officers, Railroad Officers
and Employees, and Citizens gen-
erally in California, Arizona and
Nevada:

A strike is in progress on the part of the train and enginemen and yardmen on the steam railroads being operated by the United States Government in parts of California, Arizona and Nevada. This strike began at Los Angeles purely as a sympathetic strike on account of a controversy between the Pacific Electric Railway Company and certain employees of that company. The property of that company is not in the possession or control of the Government of the United States. The strike of the employees on the steam railroads was entered upon without any grievance being presented or alleged. The strike was and is a violation and repudiation of the agreements between the striking employees and the steam railroads upon which they worked and also of the National Agreement between the United States Railroad Administration and the Chief Executives of the organizations to which the strikers belong, such National Agreement providing for the adjustment of all causes of complaint in an orderly manner without suspension of work. The strike is also an illegal strike under the laws of the organizations to which the strikers belong and has been so characterized by the Chief Executives of those organizations.

The Chief Executives of these organizations stated that they believed they could induce their men to go

back to work and urged that they be given time to enable them to do this. The Railroad Administration has given the time for this purpose. The Director General has also by publication in the newspapers of San Francisco and Los Angeles urged upon the strikers the absence of justification for their action and the importance of returning to work. Nevertheless many of the strikers have not yet returned to work and to a large extent the public service which the Government must render to the public is at a standstill. It follows that the only course which the Government can adopt is to exercise its entire power for the purpose of rendering the public service and the President has so instructed.

All striking employees who do not report for duty on and after seven o'clock on Saturday morning, August 30, when and as called for duty, will be regarded as having terminated their employment and their places will be filled.

Anyone who interferes with or impedes the possession, use, operation or control of any railroad property, or railroad under Federal Control, commits an offense against the United States, punishable by fine and imprisonment, and will be arrested and prosecuted accordingly. Anyone who obstructs or attacks persons assisting or endeavoring to assist in the possession, use, operation or control of any railroad under Federal Control, will be guilty of the offense described and will be dealt with accordingly. Anyone who obstructs or retards the passage of the mail or any vehicle or person carrying the

same likewise commits an offense against the United States punishable by fine, and imprisonment and will be arrested and prosecuted accordingly. Instructions have been issued to the United States District Attorneys and to the United States Marshals, to take the necessary steps to enforce these provisions of the Statutes of the United States.

The Governors of the States involved, the Mayors of the cities involved, and all other State and local peace officers are relied upon to lend assistance in the performance of the

public service as above outlined in every possible manner, including giving aid in the enforcement of the statutory provisions above referred to, and also in enforcing all State statutes, municipal ordinances and other local public regulations which will aid in protecting the railroad property and its operation and in protecting those assisting or endeavoring to assist in the operation of the railroads.

WALKER D. HINES,
Director General of Railroads.

APPENDIX TO CHAPTER XVI

Operation of Class I Railroads.

(Excluding Switching and Terminal Companies.)

Comparison of operating results as reported to Interstate Commerce
in Federal Control and test periods Commission.

	<i>Federal Control Period</i>		<i>Test period</i>
	<i>26 months, January 1, 1918, to February 29, 1920</i>	<i>Annual average</i>	<i>3 years ended June 30, 1917</i>
	<i>(Thousands)</i>	<i>(Thousands)</i>	<i>annual average</i>
			<i>(Thousands)</i>
Operating Revenues	\$10,879,640	\$5,021,370	\$3,348,005
Operating Expenses, Taxes and Rents	9,621,455	4,440,672	2,449,505
Net Railway Operating Income	\$ 1,258,185	\$ 580,698	\$ 898,500

Class I railroads are those having annual operating revenues above \$1,000,000; Class II railroads are those having annual operating revenues from \$100,000 to \$1,000,000; Class III railroads are those having annual operating revenues below \$100,000.

The figures for the Federal Control period include Class I railroads under Federal Control (and some of their smaller subsidiaries). The figures for the test period include all Class I railroads. The Class I railroads under Federal Control had during the test period an annual average net railway operating income of \$892,135,000, which amount was 99 per cent of the annual average net railway operating income of all Class I railroads (\$898,500,000) during the test period.

Class I railroads under Federal Control contributed approximately

98 per cent of the total net railway operating income earned by all railroads under Federal Control. Comparisons based on Class I railroads under Federal Control are therefore considered as fairly representative of the operations of all the railroads under Federal Control.

The average annual net railway operating income during the test period of the Class I railroads under Federal Control was, as above shown, \$892,135,000. If the net railway operating income for the two years and two months of Federal Control had been equal to the average results of the test period such railway operating income would have been \$1,886,687,000. But the actual net railway operating income for the entire twenty-six months of Federal Control was \$1,258,185,000, representing a decrease of \$628,502,000.

To this should be added \$13,984,000, representing the expenses of the Railroad Administration during Federal Control, making the round figure of \$642,000,000 (employed in the text to the Chapter) by which the net railway operating income of Class I

railroads under Federal Control for the entire period of Federal Control fell short of what the net railway operating income of Class I railroads would have been if based upon the test period operations of Class I railroads.

Operating Results for Various Periods of Federal Control.

References are made in the text to operating results for different periods of Federal Control. In order that these operating results may be correctly expressed, it is necessary to make numerous readjustments, due principally to the fact that during Federal Control very large payments of back pay were made to the employees. Unavoidably, such payments could not be charged into the months to which they were attributable, but had to be charged into later months. The officers of the Railroad Administration were able to make allowance, roughly, for the approximate

readjustment required on these accounts, but the general public had to take the operating statements as they were issued month by month.

An adjustment of the revenues has also been made by which a payment of \$53,000,000 to the railroads for back mail pay which was included in the revenues for January, 1920, has been allocated to the periods in which it accrued.

The following table makes the necessary readjustments and shows the approximate part of the revenues and expenses chargeable to each of the indicated periods of Federal Control:

Class I Railroads.

Operating Results for Various Periods of Federal Control.

<i>Periods</i>	<i>Net railway operating income as stated currently (Thousands)</i>	<i>Adjustments for back pay and mail pay (Thousands)</i>	<i>Adjusted net railway operating income (Thousands)</i>	<i>Proportionate part of standard return (Thousands)</i>	<i>Per cent of year</i>	<i>Net railway operating income compared with standard return² (Thousands)</i>
6 months, January-June, 1918	\$ 151,320	—\$85,744	\$ 65,576	\$ 393,967	44.16	—\$328,391
4 months, July-October, 1918	448,678	+ 52,385	501,063	343,918	38.55	+ 157,145
2 months, November-December, 1918	85,282	+ 29,665	114,947	154,250	17.29	— 39,303
Year 1918	685,280	— 3,694	681,586	892,135	100.00	— 210,549
6 months, January-June, 1919	156,827	+ 21,416	178,243	393,940	44.16	— 215,697
4 months, July-October, 1919	322,132	+ 31,282 ¹	353,414	343,962	38.55	+ 9,452
2 months, November-December, 1919	36,859	— 4,554 ¹	32,305	154,233	17.29	— 121,928
Year 1919	515,818	+ 48,144	563,962	892,135	100.00	— 328,173
2 months, January-February, 1920	57,087	— 44,450	12,637	102,417	11.48	— 89,780
26 months of Federal Control	\$1,258,185		\$1,258,185	\$1,886,687		—\$628,502

The figure of \$628,502 on the last line of the last column should be increased by \$13,984,000, the cost of the Railroad Administration Organization for the entire twenty-six months of Federal Control, thus making a total figure of \$642,486,000 as the amount by which the available net railway operating income during the entire period of Federal Control fell short of equaling the net railway operating income for the corresponding portion of the test period.

While the test period expenses did not include this item of \$13,984,000, they did include certain corporate expenses that were not borne by the Director General. The expenses of the corporate organizations during Federal Control were paid by the corporations and were not included in Federal operating expenses.

¹ Includes \$6,000,000 bookkeeping item account reinstatement of per diem charges between railroads under Federal Control. Added to October income and deducted from November and December income.

² Decrease — Increase +

While the decrease in the net railway operating income of Class I railroads during the 26 months of Federal Control was \$642,486,000 as compared with the average net railway operating income for the corresponding 26 months of the test period, the compensation for January and February, 1920, under the pro-

visions of the Federal Control Act was actually paid on a pro rata basis instead of on the basis of the net railway operating income for the average January and February of the test period. This added \$43,835,000 to the excess of rentals over income for Class I railroads and approximately \$47,000,000 for all railroads.

Class I Railroads.

Unit Costs of Railroad Service.

(Prepared by the Director, Bureau of Statistics, Interstate Commerce Commission.)

<i>Period</i>	<i>Operating Expenses and Rents³</i>					
	<i>Freight Service</i>			<i>Passenger Service</i>		
	<i>Per revenue ton mile (mills)</i>	<i>Per cent of test period average</i>	<i>Per cent of 1915</i>	<i>Per passenger train car mile (cents)</i>	<i>Per cent of test period average</i>	<i>Per cent of 1915</i>
Test Period Average	5.133	100	94.1	17.98	100	103.6
<i>Year ended</i>						
June 30, 1915	5.453	106.2	100.0	17.35	96.5	100.0
1916	4.865	94.8	89.2	17.70	98.4	102.0
December 31, 1916	4.892	95.3	89.7	18.27	101.6	105.3
1917	5.529	107.7	101.4	19.52	108.6	112.5
1918	7.666	149.3	140.6	27.55	153.2	158.8
1919	9.269	180.6	170.0	31.12	173.1	179.4

The comparison of unit costs of the United States Steel Corporation and the railroads from 1914 to 1919, in-

clusive, referred to in the text of this chapter, is given below:

³ Taxes are excluded in all years.

*Approximate Per Cent Increase in Unit Operating Costs
Compared with 1914.⁴*

Calendar year	U.S. Steel Cost per ton of finished products	Freight Cost per reve- nue ton mile	Railroads	
			Passenger Cost per pas- senger train car mile	Cost per pas- senger mile
1916	2%	10%	5%	3%
1917	35	1	13	—2
1918	62	41	59	21
1919	83	70	79	32

*Analysis of Cost of Federal Control to the Public Treasury in All
Aspects and as to All Properties.*

An analysis is here given of the various items entering into the cost of Federal Control which was stated by Director General Davis to be \$1,123,500,000. For convenience these elements will be discussed in separate paragraphs, numbered to correspond with the table in the text of this chapter.

1. *Shortage in Net Railway Operating Income (Class I Railroads) as Compared with Standard Return* \$642,000,000

This item is explained in the earlier part of this appendix.

2. *Corresponding Shortage for Other Railroads* \$26,000,000
3. *Numerous Adjustments Including Settlements for Claims for Undermaintenance* \$204,000,000

The Railroad Administration had

to account for a net amount of \$185,000,000 in making settlements with the carrier corporations for claims for undermaintenance and related items. Most of this was in connection with the railroads, although a substantial part related to some of the other carriers. The Railroad Administration had expended in overmaintenance even larger amounts, but very little of this could be collected from the railroad companies. The railroads had the advantage of a basis of settlement for undermaintenance for January and February, 1920, exceeding by about \$27,000,000 what that basis would have been if the Railroad Administration could have settled for those two months in accordance with the maintenance applied for the average January and February of the test period. Under the terms of the contracts with the

⁴ The Steel Corporation's year is the calendar year 1914, whereas the comparisons of railroad unit costs were based on the year ended June 30, 1915. As the Steel Corporation's costs in 1914 were higher than in 1915, the percentages given above are conservative. Furthermore, the Steel Corporation's expenses in 1914 to 1917 included the operating expenses of their subsidiary Class I railroads, which were excluded in 1918 and 1919 when these railroads were under Federal Control. The percentages for 1918 and 1919 are therefore understated.

The operating costs for both the Steel Corporation and the railroads include depreciation, but exclude taxes.

railroad companies, they were entitled to two average months' maintenance for January and February, 1920, this being substantially greater than the actual maintenance applied in the average January and February of the test period.

There were also miscellaneous adjustments of income from railroad operations amounting to \$19,000,000 representing chiefly the net of credits from interest on bank balances carried by the federal treasurers and adjustments of federal revenues and expenses as currently reported.

4. *Compensation to Carriers in Excess of Standard Return Basis*

\$105,000,000

This item consists of (a) the \$47,000,000 of excess compensation for January and February, 1920, above referred to, and (b) \$58,000,000 compensation paid to some of the carrier corporations in addition to what those corporations would have received if their rental had been based strictly on average annual net railway operating income (standard return) for the test period of three years ending June 30, 1917. Claims aggregating a much greater amount of additional compensation were earnestly pressed by the corporations.

5. *Increased Prices of Materials and Supplies*

\$101,000,000

At the end of Federal Control it

was necessary for the Railroad Administration to account to the railroad corporations for the quantity of materials and supplies which had been taken over at the beginning of Federal Control. Of course the materials and supplies actually on hand at the beginning of Federal Control had been very largely used up during Federal Control in connection with operations and with construction work. The Railroad Administration had in substantial part replaced these materials and supplies, but had necessarily done so, generally speaking, at higher prices, because prices had increased largely since the beginning of Federal Control. To the extent that the Railroad Administration did not have on hand at the end of Federal Control the equivalent of materials it had taken over, it was necessary to settle therefor at the prices prevailing on March 1, 1920. As the result of the Railroad Administration's obligation in the premises, there was imposed upon it a cost of \$101,000,000, representing the aggregate effect of the increases in prices of materials and supplies between January 1, 1918, and March 1, 1920. The very fact of the transfer of control to the Government and the retransfer of control to the railroad corporations necessitated this burden. There was no way in which it could have been avoided. The increases in prices were due to the disturbing effects of the War.⁵

⁵ It may be noted in this connection that this increase in prices of materials and supplies, aggregating \$101,000,000, inured to the benefit of the railroad corporations after the end of Federal Control. These supplies or their equivalent had cost the railroad corporations only what the prices were at or before December 31, 1917. But the railroad corporations, on taking back the railroads at March 1, 1920, were entitled under the Interstate Commerce Commission's rules, to charge the materials and supplies then on hand to their operations at the higher prices at which they had been paid

6. *Miscellaneous Non-Railroad Activities* \$88,500,000

There were several items having to do with transportation properties and activities other than railroad properties and activities. These involved a cost to the Treasury of \$88,500,000. Each of these items should be considered on its own merits apart from the situation as to the railroad properties. These items are as follows:

Deficit of American Railway Express Company \$36,000,000

As is shown in Chapter X on Government's Contract Relations with Carrier Corporations, the Express Company was operated throughout the War by a private corporation as the agent of the Government. The nature of the express business was such that it was peculiarly affected by the disturbing labor conditions. The deficit was affected and largely determined by what the Government felt it could do as to rate increases. The public, if it had not paid part of the cost through the public treasury, would still have borne the entire cost through paying higher express rates.

The Railroad Administration incurred a cost of \$22,000,000

In paying agreed rentals, on the basis established by law, to carriers other than railroad companies such as coastwise steamship companies, electric lines, companies owning cars, etc., etc. Here also the question of what the Government felt it could do as to rate increases was an essential factor. If the rates had been raised sufficiently to escape the deficit the public would nevertheless have had to pay the cost.

for by the Railroad Administration. The difference, aggregating \$101,000,000 for the railroads as a whole, constituted an item of profit to the railroad corporations. If prices had gone down to the same extent, the profit would have been with the Railroad Administration and the loss with the carriers.

The Railroad Administration incurred a cost of \$18,000,000

In the beginning of a development of transportation systems on the New York Barge Canal, and the lower Mississippi and the Warrior Rivers. Federal Control ended too soon to admit of the development of traffic sufficient to sustain the investment. This development was undertaken in the difficulties incident to war, as is explained in Chapter XIII on Inland Waterways, as a result of a clearly indicated attitude on the part of Congress. Of the \$18,000,000 thus expended, over \$16,000,000 was expended for equipment, and the rest of the cost was due directly or indirectly to operating costs in a period when it was hopeless to expect immediate operating returns.

The Railroad Administration incurred a cost of miscellaneous items relating chiefly to non-railroad activities of \$12,500,000

The total of these non-railroad items discussed in this paragraph 6 is \$88,500,000

This total must be excluded in any consideration of the cost to the public treasury with relation to the railroads.

7. *Capital Expenditures for War Purposes* \$11,000,000

These were expenditures for facilities constructed for camps and cantonments, landing and storage facilities for the navy at wharves, and other war facilities, which were beyond the needs of the carriers under normal conditions of private control. Under the Federal Act and the Standard Contract these war facilities

ties were paid for by the Director General and charged to Federal operating expenses.

8. *Expenses of Railroad Administration* (March 1, 1920, to December 31, 1924) \$19,000,000

The expense of carrying on the Railroad Administration from March 1, 1920, until December 31, 1924, aggregated \$19,000,000. This expense was incurred in order to make the settlements between the Government and the corporations. By taking over the railroads and other transportation systems the Government had to assume numerous and intricate obligations in respect of properties with book values exceeding \$18,000,000,000. Almost endless oppor-

tunities arose for differences of opinion between the Government and the carriers upon the retransfer of the properties. These matters had to be investigated at length and discussed and debated with deliberation. The cost of the organization for such winding up was inevitable.

9. *Total* \$1,196,500,000

10. *Less Credit for Interest Collected* \$73,000,000

This item included the interest collected on bank balances, securities and settlements with the carriers in excess of interest payments.

11. *Net Cost of Federal Control* \$1,123,500,000

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